The Economist

20020622

PRINT EDITION

Full contents
Enlarge current cover
Past issues/regional covers
Subscribe

NEWS ANALYSIS

POLITICS THIS WEEK

BUSINESS THIS WEEK

OPINION
Leaders
Letters to the editor

WORLD
United States
The Americas
Asia
Middle East & Africa
Europe
Britain
International
Country Briefings
Cities Guide

SURVEYS

BUSINESS
Management Reading
Business Education
Executive Dialogue

FINANCE & ECONOMICS
Economics Focus
Economics A-Z

SCIENCE & TECHNOLOGY
Technology Quarterly

PEOPLE
Obituary

BOOKS & ARTS
Style Guide

MARKETS & DATA
Weekly Indicators
Currencies
Big Mac Index

DIVERSIONS

RESEARCH TOOLS

CLASSIFIED ADS

DELIVERY OPTIONS
E-mail Newsletters
Mobile Edition
RSS Feeds
Screensaver

ONLINE FEATURES
Cities Guide Go
Country Briefings Go
Audio interviews Go
Classifieds Go

The Economist Group
Economist Intelligence Unit
Economist Conferences
The World In
Intelligent Life
CFO
Roll Call
European Voice
EuroFinance Conferences
Economist Diaries and
Business Gifts

Advertisement

Print Edition June 22nd 2002

An economy singed
The markets' mood reflects a poor outlook for America's economy ... More on this week's lead article

Previous print editions
Jun 15th 2002
Jun 8th 2002
Jun 1st 2002
May 25th 2002
May 18th 2002
More print editions and covers »

Subscribe
Subscribe to the pri
Or buy a Web subsc
full access online
RSS feeds
Receive this page by

The world this week

Politics this week
Business this week

Leaders

The United States
An economy singed

France and Europe
Moi? A new start?

Africa's economies
An African cure for Africa's ills

Israel and Palestine
Hope and the suicide bombs

North Koreans in China
Needing refuge

Letters

On South Korea, Grameen Bank, Africa's copper, internally-displaced persons, Britain's monarchy, moose

Special Report

By invitation
The poor's best hope

United States

Fiscal policy
A decade of deficits

Forest fires
The blazing days

The Bush doctrine
Caveat pre-emptor

The Catholic bishops
Not ready for defrocking

Boondoggles to make the mind boggle
Hard corps

Jesse Ventura
Back to boredom

Historical analysis
Dismembering Bill Clinton

Lexington
Karl Rove's fading ambition

The Americas

The politics of privatisation
Arequipa's anger, Peru's problem

Politics in Brazil
Deal making

Mexico and the United States
A water debt boils over

Mario Dumont
Quebec's fresh face

Asia

Indonesia
The challenge for moderate Islam

Japan
Handcuffs and gridlock

South Korea
Winners, losers

Afghanistan's government
Small change

China
Men without women

Tuberculosis in India
Joining the dots

Middle East & Africa

Israel and the Palestinians
The passions aroused by terrorism, and by an anti-terrorism fence

The fenced-in West Bank
Suffering for the crimes of the few

Iran's economy
Stoic before the storm

The EU and Iran
The hand of friendship?

African development
Great expectations

Europe

France's new government
What next for Jacques Chirac and his dominant centre-right?

The right in Germany
Edmund Stoiber sets out his stall

Kosovo
Crab-like progress

The Czech general election
The left holds on

Hungary's embattled prime minister
He admits he spied but it was long ago

Charlemagne
Valéry Giscard d'Estaing, Europe's conductor

Britain

Criminal justice
Tipping the scales

Northern Ireland
The question that won't go away

British Museum
Sorry, we're closed

Quakers
Quiet, please

National Health Service
It isn't getting better yet

Exams
Fool's gold

Bagehot
The hardest word?

Articles flagged with this icon are printed only in the British edition of *The Economist*

Technology Quarterly

OPINION
Picking winners

MONITOR
Instant messaging joins the firm

MONITOR
Solar cells go organic

MONITOR
Nature's way of plating

MONITOR
Making the connection

MONITOR
Quantum leap for medicine

MONITOR
More power to the thumb

MONITOR
ARMs around the world

DIALOGUE
Buggy whipped

REPORTS
Watch this airspace

REPORTS
A match for flash?

CASE HISTORY
Hooked on lithium

REPORTS
Relishing the flavour

REPORTS
Inoculating the network

LAST WORD
Tinkerers' champion

Business

Video games
Console wars

Advertising
Communications breakdown

South African mining
The diggers are restless

Switzerland's Centerpulse
Back on its feet

Vivendi Universal
Water torture

Airlines in China
CAAC-handed

Face value
Losing his Sparc

Special Report

American companies
Trial and error

Chief executives
Churning heads

Auditors
House of correction

Correction

Finance & Economics

Valuing stockmarkets
Calling for the band to strike up

Globalisation and freedom
The prosperity league

Apartheid claims
Fingering the banks

Insider dealing
That Martha moment

Central European central banks
Whipping boys

Japan's bad-loan agency
Garbage in

Economics focus
In praise of common sense

Science & Technology

Chip making
Stamping on tradition

Exploring comets
The first shall be last

Extrasolar planets
Nativity story?

Memory formation
Learning in your sleep

Books & Arts

Contemporary art
Blue days

The moneying of America
Holy grails

The Spanish civil war
Bravehearts

New fiction from the Middle East
Rock of all ages

Militant Islam
Rages of fear

Classical antiquity
Stones of contention

New fiction from Australia
Hidden depths

Obituary

Bill Blass

Economic and Financial Indicators

Overview
Output, demand and jobs
Prices and wages
Output gap
Money and interest rates
The Economist commodity price index
Stockmarkets
Trade, exchange rates and budgets
Top companies by market capitalisation

Advertisement

Classified ads

Jobs

Senior Operations Manager, Financial Markets
Terms of Reference IFC Private Enterprise Partnership Background ....

Business / Consumer

WSI Internet - Start Your Own Business
Business Opportunity - WSI Internet Start Your Own Busines....

Tenders

WSI Internet - Start Your Own Business
Business Opportunity - WSI Internet Start Your Own Business! Profit....

Property

WORK FROM HOME
SALES REP. NEEDED A SALES REP IS NEEDED TO BE WORKING FROM HOME FOR EGOBOLIC TIMBERS INTL. YOU....

Jobs

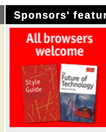
Tenure Track Position Available
Assistant Professor of Geography Tenure-track Assistant Professor position, starting....

Tenders

Invitation for Prequalification
Hashemite Kingdom of Jordan Ministry of Finance for Supply and Implementation ....

Sponsors' feature

About sp



Copyright © The Economist Newspaper Limited 2007. All rights reserved. Advertising Info | Legal disclaimer | Accessibility | Privacy policy | Terms & Conditions | Help

Produced by = ECO PDF TEAM =
Thanks xxmama

PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

Politics this week

Jun 20th 2002
From The Economist print edition

Terrorism and a fence

AP

Two **suicide bombs** exploded in Jerusalem, the first, claimed by Hamas, killing 19 people including six schoolchildren, the second six people. The Israeli army re-entered several West Bank cities, and Israel said they might stay there "so long as the terror continues". With both the far-right and the far-left against it, Ariel Sharon's government set about building a security fence between Israel and the West Bank. The United States condemned Palestinian violence, and George Bush postponed announcing his much-advertised peace plan.

See article: Peace postponed again

The arrests were announced of several alleged **al-Qaeda** supporters. Morocco arrested Abu Zubair, a Saudi national, and passed another arrested suspect, Muhammad Haydar Zammar, to Syria. Saudi Arabia admitted that it had arrested 13 suspects some time ago. A British banker was killed in a car-bomb explosion in the Saudi capital, Riyadh.

Marc Ravalomanana, one of **Madagascar's** two presidents, dissolved his government and said he would welcome supporters of his rival, Didier Ratsiraka, into a new government of national unity. Mr Ratsiraka flew to France with his family. Sporadic fighting across the country between the two camps brought two new towns under the control of Mr Ravalomanana's forces.

Over 60 people were arrested after a peaceful rally in support of the opposition Movement for Democratic Change in **Zimbabwe's** capital, Harare. Among the detainees were a member of parliament and three journalists. The trial of *The Economist* (and *Guardian*) correspondent, Andrew Meldrum, was adjourned until July 12th after the prosecution rested its case. A new levy of $12,000 was announced for foreign media to register in Zimbabwe.

An American lawyer, Edward Fagan, filed a lawsuit against three banks, two Swiss and one American, which he accuses of breaking sanctions by giving loans to **South Africa's** apartheid government between 1985 and 1993. He says they should pay $50 billion in compensation to apartheid's victims because the loans helped to support the regime.

See article: Banks sued for lending during apartheid

The centre-right holds

France's centre-right won a crushing victory in the concluding second round of a general election, allowing Jacques Chirac, re-elected president last month, to nominate a government to his own taste and confirm Jean-Pierre Raffarin as prime minister. Jean-Marie Le Pen's far-right National Front failed to win a single seat in parliament.

See article: A challenge for France's new government

Reuters

José Bové, a French farmer who leads a populist movement against globalisation, began a three-month prison sentence, which had been suspended until after the French elections, for helping to smash up a McDonald's restaurant in southern France in 1999.

The Social Democrats held on in the **Czech Republic**, beating Vaclav Klaus's right-wing Civic Democrats in a general election. Vladimir Spidla will replace Milos Zeman as prime minister.

See article: The left keeps power among the Czechs

The Netherlands'caretaker government, expected soon to be replaced by a coalition of the right including some anti-immigration populists, launched a criminal inquiry into some Muslim religious leaders accused of inciting violence and breaking the law.

Policy over **immigration** into the European Union was expected to top the agenda at a summit of EU leaders gathering in the Spanish city of Seville on June 21st and 22nd. The European Commission's president, Romano Prodi, suggested that there should be a smaller inner cabinet of commissioners in order to cope with a bigger EU, which could embrace as many as 25 countries in 2004.

See article: Huddled masses, stay out

Hungary's new Socialist prime minister, Peter Medgyessy, was under pressure to resign after admitting that he was a counter-espionage agent in the communist era.

See article: Hungary's prime minister caught in a spy scandal

Perugia, an Italian football club, sacked one of its players, Ahn Jung Hwan, for upsetting the natural order by scoring the goal for South Korea that knocked Italy out of the **World Cup**.

Suzuki crashes

Muneo Suzuki, a former heavyweight in Japan's ruling Liberal Democratic Party, was arrested and accused of taking bribes. He denied the charges and refused to give up his seat in parliament. In another case, Makiko Tanoka, a former foreign minister, was suspended from the party.

See article: A political arrest in Japan

India's defence minister said there has been a “considerable” decline in the number of cross-border incursions from Pakistan.

Democrats criticised Tung Chee-hwa, **Hong Kong's** Beijing-backed leader, for his plan to increase his power by creating an unelected “cabinet” of 14 people to make policy and run the civil service.

As the *loya jirga* (grand council) approved a new government for **Afghanistan**, Kabul was attacked by rockets probably fired by remnants of the ousted Taliban regime.

See article: Afghanistan's new government

Make my day

It emerged that President George Bush has authorised a **covert operation** by CIA special forces to capture Saddam Hussein. The small teams, similar to those currently operating in Afghanistan, would be permitted to kill him in “self-defence”.

See article: George Bush's doctrine of pre-emption

Wildfires blazed across 11 American states, including Colorado where more than 6,000 residents were evacuated. Some 1.5m acres have burned so far this year.

Reuters

See article: The fires in the West

America's Roman Catholic bishops voted to remove priests who had committed **sexual abuses** from the ministry, though not to defrock them. The policy will stay in place for the next two years. Outsiders called for a sterner response.

See article: The bishops balk

Short circuit

In a rebellion against privatisation in **Peru**, protestors shut down Arequipa, the country's second city, after one person had died and over 100 were injured in rioting. The government agreed to refer the sale of the city's electricty generator to a judge; the interior minister resigned.

See article: An uprising in southern Peru

Action Démocratique du Québec, a newish party espousing moderate nationalism and conservative economics, won three by-elections in **Quebec**, increasing its chances of ending three decades of alternating rule by separatists and Liberals in a provincial election due next year.

See article: A sudden shake-up for Quebec politics

Stay informed this week and every week

Sign up to receive *The Economist*'s round-up of business and politics each week. These e-mail newsletters are free and will keep you up-to-date on the latest developments around the world. Sign up here.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Economist.com BUSINESS
PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

Business this week

Jun 20th 2002
From The Economist print edition

House of correction

America's rogue accountants may at last face curbs. A Senate committee approved draft legislation to create an independent-oversight board to set audit standards, punish wrongdoers and limit consultancy and other non-audit work by accounting firms. If this fails to become law, the Securities and Exchange Commission has another plan, albeit less stringent: independent regulation through a "public accountability board" that could fine and censure accountants or remove them from audits.

See article: A profession under fire

Andersen was found guilty by a Texas jury of obstructing justice during an investigation by the Securities and Exchange Commission into the collapse of Enron. The conviction spells final doom for the embattled accounting firm. Clients have deserted in droves since charges were laid in March; the verdict removes any lingering hopes that it could continue in some form.

See article: The implications of Andersen's conviction

Joe Nacchio at last found a way to lift the foundering share price of **Qwest Communications**. He was asked by his board to resign as chief executive of the beleaguered American telecoms company, sending its shares up by 20%.

See article: Who's replacing America's disgraced CEOs?

Omnicom, the world's third-largest advertising group, rejected suggestions that it had employed questionable accounting methods. Its shares dived when the chairman of its audit committee resigned recently. Omnicom promised there were "no skeletons in the closet."

See article: Communications conglomerates under scrutiny

Pay-as-you-lose mobile

Vodafone's latest achievement: an annual loss of £13.5 billion ($19.3 billion), the biggest by any British company. The apparent reward: Sir Christopher Gent, the British mobile-phone firm's chief executive, is paid a bonus worth £1.6m, on top of £2.4m in salary and extras. The upshot: shareholder ire.

German shareholders had better news. Eight board members of **Deutsche Telekom**, more mindful of market conditions, agreed to forgo a *euro*17.5m ($14m) share-option package. The managers will receive only half of an allocation of options worth four times as much.

Water under the bridge

Vivendi Universal is to give up control of Vivendi Environnement, a water and sewage company. A cut in its stake from 63% to around 40% is in the pipeline. Vivendi will raise some *euro*1.7 billion ($1.6 billion) to pay off debts and will also be able to shed a further *euro*14 billion of the water company's debt from its books.

See article: Vivendi sells its water utility

The European Commission ordered **Deutsche Post** to repay *euro*572m ($547m) to Germany's government, after ruling that it had used cash generated by its postal monopoly to subsidise its loss-making parcels business. Germany always maintained that it had done nothing wrong. The commission may now pursue similar cases of illegal state subsidies against postal services in France and the Netherlands.

Nestlé scooped up **Dreyer's Grand Ice Cream**, raising its stake from 23% to 67% for some $2.4 billion. The purchase puts the Swiss food giant level with Unilever as the world's biggest ice-cream maker, even if it cannot match Unilever's impressive margins from premium brands such as Ben & Jerry's.

Madison Dearborn, an American private-equity company, had an offer of *euro*3.7 billion ($3.5 billion) accepted by **Jefferson Smurfit**, an Irish paper and packaging firm. Other American private-equity firms with an interest in paper may join in a takeover battle.

State-owned **Electricité de France**, Europe's biggest power company, paid £1.4 billion ($2.1 billion) for Seeboard, a British electricity distributor, claiming that it was the "final component" of a British distribution and generation network that includes London Electricity. The French power market remains closed to foreign investors.

The world's four largest DRAM-chip makers—America's **Micron Technology**, South Korea's **Samsung Electronics** and **Hynix Semiconductor**, and Germany's **Infineon**—admitted that they were involved in an anticompetitiveness probe by America's Department of Justice. The subsequent investigation widened to include smaller chip makers in Taiwan and Japan.

See article: A new way to make silicon chips

Oracle announced revenue for its latest quarter of $2.8 billion, compared with $3.3 billion a year ago. But that still comfortably topped analysts' expectations. Shares in the world's second-largest software company shot up.

Price lines

Consumer prices in America rose by 1.2% in the year to May, after remaining flat over the month. It was also confirmed that inflation in the euro area had fallen to 2% in the year to May, after prices rose by just 0.1% over the month.

See article: Mr Bush's budget problems

Stay informed this week and every week

Sign up to receive *The Economist*'s round-up of business and politics each week. These e-mail newsletters are free and will keep you up-to-date on the latest developments around the world. Sign up here.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

The United States

An economy singed

Jun 20th 2002
From The Economist print edition

The markets' mood reflects a poor outlook for America's economy

Get article background

“AMERICA'S economy is the healthiest in a generation and the strongest in the world.” So Bill Clinton bragged to his fellow summit leaders when they last met in North America five years ago. The Denver G8 summit marked a high point of American triumphalism, with European and Japanese leaders left to squirm uncomfortably in their cowboy hats as their exuberant host extolled the wonders of America's new economy. For the first time in a quarter-century, they were told, the world had an undisputed model for economic success.

How times change. When George Bush visits the Canadian ski resort of Kananaskis on June 26th for this year's G8 summit, he will have much less to brag about. Certainly as far as investors are concerned, the much-touted American model has lost a lot of its allure. They are fretting over several potential economic weaknesses, and also over continuing revelations of corporate America's shoddy accounting, greedy managers and lousy investment decisions—and they are selling.

The results are clear. For the first time since the 1920s, stockmarkets have been falling during the first few months of an economic recovery. The Dow Jones Industrial Average has fallen in ten of the past 13 weeks, and is now down to the levels of early 1999. And the mighty dollar, long a symbol of America's miraculous economy, continues to slide. Since January, it has fallen by 10% against the euro and by 8% against the yen.

To determined optimists, notably Paul O'Neill, America's Treasury secretary and cheerleader-in-chief, none of this behaviour makes sense. “There is an unbelievable movement in the market without...substantive information,” he said of Wall Street last week. Far from losing its allure, the American model has proved how resilient it is, shrugging off the bursting of the technology bubble as well as a huge terrorist attack, with a recession that was remarkable for its mildness and short duration. With productivity growth continuing to surpass expectations, America's economic future still shines more brightly than anywhere else. Once investors realise this, the argument goes, they will abandon their irrational funk.

Reasons to be unexuberant

Mr O'Neill's analysis may be partly right; but his conclusions are wholly wrong. America's economy has indeed shown a striking resilience during the past year or so. Although the new-economy hype of the late 1990s was hugely overblown, American productivity growth remains impressively stronger than it was in the 1970s and 1980s. But despite this, there are good reasons for the markets' current angst.

Doubts about the pace of economic recovery lie behind much of it. Wall Street is still, by any historical measure, extremely highly valued (see article). In so far as they ever made sense, such valuations assumed a speedy return to the extraordinarily high profit claims of the late 1990s. That assumption seems increasingly far-fetched. Mr O'Neill may not have noticed any “substantive information” recently, but others have. In particular, they fret about signals that the American consumer may be running out of steam. May's retail sales fell by an unexpectedly large 0.9%. With no evidence of a rebound in

investment, any hint of a flagging consumer suggests that the recovery will be weak at best, and certainly not the robust boom that markets counted on at the start of the year.

The second and even more intractable cause of the angst is investors' loss of trust in American companies (see article). In the six months since Enron collapsed, many of the titans of American capitalism have been toppled. Andersen, which audited Enron's accounts, was convicted last week by a court in Texas for obstructing justice. It will go out of business in August. Several high-profile chief executives have fallen from grace and been ousted from their jobs. The list of companies facing accounting scandals grows longer by the week.

Almost 1,000 American companies have now restated their earnings since 1997, admitting in effect that they had previously published wrong or misleading numbers. As the Securities and Exchange Commission cracks down on creative corporate accounting, more such admissions lie ahead, even among household names. Phoney accounts mean that much of the profit growth of the late 1990s, the ostensible justification for Wall Street's bubbling up to its ephemeral heights, was equally phoney. It is hardly surprising that investors are so anxious.

Disappointment and anxiety have prompted investors, particularly foreigners, to re-examine America's economic model in a new and more critical light. And, unfortunately, several other long-ignored blemishes are now glaring. Notable among them is the country's reliance on foreign savings. With a current-account deficit of around 4% of GDP and rising, America is absorbing an ever-rising share of global savings—a trend that is ultimately unsustainable. Worse, unlike in the 1990s, these savings are not financing a private-sector investment boom. With business investment flat, foreigners are now largely financing Americans' consumption and, increasingly, a rising federal budget deficit.

Driven largely by last year's recession, America's budget deficit is likely to reach 1.5% of GDP this year. Unfortunately the combination of Mr Bush's enthusiasm for tax cuts and Congress's proclivity for spending suggests that deficits of 1% of GDP or more may linger even as the economy recovers (see article). It is no small irony that, just as the sliding dollar suggests that foreigners are becoming increasingly unwilling to pay for Americans' lack of thrift, the Bush administration and Congress are doing their best to pull America's saving rate down yet further.

Add all these things up, and the great model that Mr Clinton touted at Denver looks a lot less triumphant. That does not mean that any new star has taken its place. Set against Japan's slow-motion implosion and even against Western Europe's still-sluggish economies, America still stands out for its dynamism and flexibility. Its economy remains the “strongest in the world”. But the gap between the United States and the rest has shrunk—and is still shrinking.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

France and Europe

Moi? A new start?

Jun 20th 2002
From The Economist print edition

Jacques Chirac has won a famous victory. But it may change France and Europe less than might be hoped

Get article background

AP

REMEMBER Jean-Marie Le Pen, the immigrant-bashing bruiser who failed to win a single seat in last week's French general election? Remember Lionel Jospin, the charmless but competent Socialist prime minister who retired last month after being ignominiously bounced out by Mr Le Pen in the presidential election's first round in April? Remember Jean-Pierre Chevènement, an EU-baiting, leftish nationalist whom pollsters were briefly puffing up as a maverick presidential hopeful who might trip up the old elite? Suddenly all those contenders have vanished, the fear of a quasi-fascist revival has subsided, the left has been routed and all, it seems, is hunky-dory for France and for a president who was quite recently said to be so tainted by allegations of financial impropriety that he would be lucky to hold on to the top job.

In last weekend's poll for the National Assembly, parties backing Mr Chirac won the biggest majority in 34 years. Now, it would seem, France's president, liberated from the straitjacket of cohabitation, can do just about whatever he likes. He could even—if he had the oomph—embark on all those reforms that go-ahead Frenchmen talk about (see article) but never quite have the steeliness or agility to enact: loosening labour markets; selling off more of the state; prodding people into buying private pensions; cutting taxes, and so on.

And it's not just France

Moreover, a bracing wind of change—so the more bullish of modernisers insist—is billowing across Europe from left to right, blowing a host of others of Mr Chirac's hue into power in the past year or so (in Italy, the Netherlands, Portugal, Denmark and Norway, for instance), while pumping up other right-wingers (in Spain, Austria and Ireland) already there. Germany, they predict, will be next to move rightwards. Greece might be bending that way too. Only Sweden and Britain seem set to stand firm before the rightward breeze, yet Tony Blair is anyway, to some, a closet right-winger.

But hold on. Has anything changed profoundly? Is Mr Le Pen truly yesterday's man? And why be confident that Mr Chirac and his new team will launch France on the way, at last, to a less hamstrung version of modernity? The answers are less reassuring than the hype of victory would suggest. A shift has plainly occurred, but it is far from the epochal sea-change that friends of Mr Chirac, and right-wingers elsewhere on the continent, may have you believe. Both France and Europe are still a long way from taking the sort of decisions that would set them sailing full tilt in a new direction.

But hold on. Has anything changed profoundly? Will Mr Chirac's new team really bring sea-change?

Take France first. The four-phase string of elections that started in mid-April and ended on Sunday provided a spasm of salutary shocks and reminders. Mr Le Pen's achievement in reaching the presidential race's final round, with nearly 18% of votes cast, jolted the French elite into recognising the anger felt by ordinary people, not just against immigrants and crime, but also at the aloofness of government and the

unaccountability of bureaucrats in Brussels as well as Paris. Mr Le Pen's party got many fewer votes, down to about 12%, in the general election, but the malaise that he exploits is still there. The abstention rate, which rose to an unFrench 40% in last Sunday's finale, further suggests that something is amiss.

Mr Chirac has another chance. His new prime minister and government look solid and sensible. But beware. Five years ago Mr Chirac appointed a clever new prime minister of the right, Alain Juppé. He proposed a bold set of reforms. Yet when his government tried to enact them it was up-ended in the street. The new lot may be cannier. But Mr Chirac has no record of radicalism or courage. The same could happen again.

Continental consequences

The puzzle of Mr Chirac's France is part of a wider European conundrum. So is the problem of immigration that Europe's leaders are pondering this weekend at the EU's summit in Spain. Europe is on the brink of dramatic changes in size, shape and governance. Many of its peoples, not just the French, are nervous and unsure where the continent is going. Enlarging the EU requires drastically new institutional arrangements. Who will call the shots? Who will pay, and how much, to help bring the EU's new countries up to scratch? Should a clutch of big countries set the agenda for the smaller ones? France is particularly uncomfortable in the face of all these questions. It has lost its leadership of the EU, which it once dominated with Germany. It is edgy about enlargement, though probably lacks the gall to stop it. It is loth to help Polish farmers if that would mean less generosity to French ones. But other countries are asking these crabby questions too.

Do the newly elected governments of the centre-right have the answers? Fears of uncurbed immigration, legal and illegal as Europe's internal borders fall away, may have boosted right-wing parties at the margins, enough sometimes to bring them to power. All countries intone a mantra of co-operation across the EU. Yet forging a common policy is hard, and centre-right governments may prove no better than have those of the left at balancing the benefits offered by the free movement of labour against voters' fears, often irrational, about threats to national identity. Similar fears about a bigger Union may have made people warier of European integration. But continental right-wingers have, in the past, been no less keen to unify Europe than have those on the left. The pro-European in charge of the EU's constitutional debates is Valéry Giscard d'Estaing, France's previous right-wing president (see article).

In any case, the continental shift to the centre-right may be less profound than it appears. In the past decade, the gap between left and right has shrivelled. The new left has been kinder to the market; the end of the cold war has made it possible to enlarge NATO and give it new tasks that even anti-militarists in Germany can endorse. It is not even certain that the centre-right can make an enduring difference to labour-market reform: witness trade-union protests this week, in Spain and elsewhere. Five years ago Europe's centre-left seemed to be in charge. Now the pendulum has swung. But a new era is by no means pre-ordained.

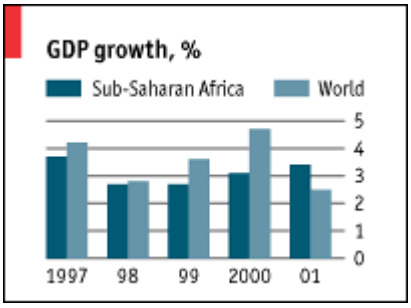
Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Africa's economies

An African cure for Africa's ills

Jun 20th 2002
From The Economist print edition

A new blueprint for growth will make a difference only if its drafters mean what they say



WORDS are cheap. Will there be any useful action on Africa's programme of renewal, which is due to be launched next week in Canada at a meeting of the G8 heads of state? Thabo Mbeki, South Africa's president and the driving force behind the New Partnership for Africa's Development (Nepad), says that the continent must end its wars, get better and truly democratic governments, free its trade and do much more to welcome investors. All these are fine ideas. It is a measure of how troubled the continent has been in recent decades that such ambitions need to be argued for at all, and it is a measure of progress that African leaders are prepared to endorse them now. But there have been many grand plans for the recovery of Africa which quickly failed, mostly because lip service did not translate into real action.

Still, there are reasons to be mildly optimistic about this one. It has not been imposed by outsiders but drawn up by some of the continent's more responsible leaders. In the past, Africans have not felt much committed to such plans. Now they recognise that the first duty for recovery lies with themselves, and so Africa is not passing around a begging bowl to rich countries. Instead, Nepad proposes some specific projects and targets, for example on agriculture, education and energy, which can be measured. Though these require foreign capital, the African leaders mostly want to attract it through private investment, not handouts. Nor does the plan rely on the setting up of a cumbersome bureaucracy. It is a programme not an organisation, says Mr Mbeki.

The most important test of Africa's new plan will be how it implements the novel mechanism of “peer review”. This is supposed to encourage African criticism of those African governments that repress their people, destroy their own economies or stir up wars. Mr Mbeki says he wants the first of these reviews to be completed within a few months. It is still unclear quite how peer reviews will work (see article), but in principle they should help break a destructive solidarity between African rulers, who for too long have supported each other in holding on to power by rigging elections, banning opposition parties, intimidating the press and worse. The Organisation of African Unity has said for a while that leaders who gain power through coups will not be allowed to take part in its meetings. That useful first step could make the novelty of peer review easier to swallow.

Yet coups are not the only, or even main, threat to democracy in Africa. When Zimbabwe's government rigged a presidential election in March many fellow African leaders fell over themselves to declare the result legitimate. Since then bad government and bad weather have made things so awful that as many as 6m people in Zimbabwe may need food aid this year. The next test will be Malawi, where President Bakili Muluzi wants to run for an unconstitutional third term. Other cases are bound to follow. If Africa's more responsible leaders—Mr Mbeki, Olusegun Obasanjo of Nigeria, John Kufuor of Ghana, Abdoulaye Wade of Senegal and others—set an example by criticising their peers, foreign investors and donors would be assured that large parts of Africa were serious about preserving stable democracies ruled by law. Without such peer criticism, outsiders would worry that Zimbabwe and its like are setting a common abysmal standard for the whole continent. In that case all the good ideas set out in Nepad would be in danger of coming to naught.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Israel and Palestine

Hope and the suicide bombs

Jun 20th 2002
From The Economist print edition

If the Palestinians want a state, they will have at some point to disarm Hamas

Reuters

Get article background

CHERIE BLAIR, the wife of Britain's prime minister, got into hot water for a remark about Palestinian suicide bombers this week. She said at an appeal for a Palestinian charity that “as long as young people feel they have got no hope but to blow themselves up, you are never going to make progress.” She failed to express a word of sympathy for the 19 Israeli commuters a Palestinian suicide-bomber had mass-murdered in Jerusalem that very morning. After a complaint from Israel, Downing Street issued an apology, of sorts. “It goes without saying”, said the prime minister's office, “that she condemns the atrocity today in the strongest possible terms.”

It is indeed inconceivable that the good Mrs Blair meant to condone the bombing. But her remark reflects a common misunderstanding. However desperate the plight of the Palestinians, the suicide murders are not just individual expressions of hopelessness. They are well-planned attacks by organised groups which have clear political aims.

The political aim of Hamas, which claimed the Jerusalem attack, is not merely to end Israel's occupation of the West Bank and Gaza. Like Islamic Jihad (and, across the Lebanese border, Hizbullah), this is an Islamic fundamentalist group that advocates the eradication of the Jewish state itself. Far from slowing its attacks when “hope” of the sort Mrs Blair has in mind starts to glimmer, Hamas has a habit of intensifying its violence, in order to provoke an Israeli reaction (all too easy, alas, under the premiership of Ariel Sharon) and thwart the possibility of compromise. It was Hamas that killed some 30 Israelis at a Passover supper in April, on the eve, surely not coincidentally, of the Beirut summit at which the Arab states planned to endorse Saudi Arabia's plan to offer Israel peace in return for a withdrawal to its pre-1967 borders.

In similar fashion, this week's attack may have been timed to undermine the American peace plan expected at long last from George Bush. To judge by a torrent of leaks (to be treated cautiously given the administration's well-publicised divisions on this subject) the president's idea is to re-designate as a provisional state the enclaves in the West Bank and Gaza that Israel handed over to Yasser Arafat under the now almost defunct Oslo process. Israel and the Palestinians could then negotiate their final borders and relations on slightly more equal terms—state-to-state—egged on from the sidelines by a meeting attended by the other Arab states, America, the United Nations, the European Union, Russia, Uncle Tom Cobbleigh and all. A timetable might be set for progress towards a final settlement, but this would depend on the Palestinians cleaning up their corrupted administration and making a good-faith effort to stop the terrorist attacks on Israel.

The last point is the crucial one. It is possible to imagine Israel and an independent Palestine co-existing even if the government of one regards the government of the other as undemocratic or corrupt. It is not possible to imagine peaceful co-existence if the future Palestine remains a base from which Hamas continues its war of extirpation against Israel.

One thing a neighbour must do

Under Oslo, Mr Arafat promised to prevent such attacks. He did impose long periods of quiet. But he never made a serious effort to disarm Hamas, which has operated openly under his jurisdiction. Since the *intifada*, Hamas's campaign of atrocities against Israeli civilians has been emulated by its secular rivals, which dare not risk looking less zealous than a competitor. As a result, many Israelis who were willing to trade land for peace believe now that the aim of most Palestinians is to eliminate Israel altogether—a belief that plays into the hands of those Israelis who have long preferred to hold the land. Yes, peace must mean Israel giving up most if not all of its settlements and accepting a Palestinian state. But if the Palestinians aspire to statehood they must at least disarm even if they do not disband the groups that vow holy war to the end against the Zionist enemy. They should have done so long ago.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Economist.com OPINION LEADERS
PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

North Koreans in China

Needing refuge

Jun 20th 2002
From The Economist print edition

China has a duty to protect fleeing North Koreans

COMPARED with other explosive problems on the Korean peninsula—from North Korea's suspected nuclear ambitions to the armed confrontation across the mis-named demilitarised zone with South Korea—the trickle of North Koreans provoking undiplomatic scuffles as they seek refuge in foreign embassies in China may seem a minor issue. Their numbers are tiny: last year just 583 North Koreans (though twice as many as in the previous year) found their way to South Korea, many via China. In 1989 it took thousands of East Germans clambering through the iron curtain from Hungary to pull down the Berlin wall, eventually. But North Korea and China can take no comfort in that. It is in the differences with 1989 that the dangers for them lie.

North Korea is no East Germany. Its people have been literally starving: some 2m (about one in ten) have died of hunger since 1995. About one in three are being fed through the generosity of outsiders, including America, South Korea and Japan—all routinely vilified by North Korea's noxious regime. Fearful of the threat to its power from real reform, it keeps control through repression. South Korea has been reluctant to press the North on human rights. Though they support eventual unification, the cost of bridging the gulf in living standards between the two Koreas makes South Koreans blench. The government welcomes what it diplomatically calls North Korean “defectors”, but is fearful of encouraging a flood.

In recent years up to 300,000 North Koreans have fled into China. China refuses to call them asylum-seekers, claiming they are merely economic migrants and promising North Korea it will hand them back. To avoid a diplomatic dust-up with others, China had nonetheless been allowing the few embassy gate-crashers who got through to depart quietly for places like the Philippines, before going on to South Korea. But as numbers have risen, and since the televised fisticuffs earlier this month between South Korean diplomats and Chinese guards who had illegally hauled off a luckless Northerner from their compound, China has toughened its stance. Barbed wire is going up around some diplomatic compounds, and border sweeps are pushing escapees back into North Korea.

Denying the truth

Rather than acting as a safety valve in the cause of peaceful change, as Hungary did in 1989, China is helping North Korea's regime ram the cork back in the flask of pent-up discontent. But that is no solution. China would do far better to lean on the regime to mend its ways. And it would improve its own tarnished image by treating those who flee as genuine refugees, entitled to protection under international law.

China is loth to do this in part because it might encourage more North Koreans to escape. Yet the publicity generated by cloddish attempts to stop the gate-crashers has done much to advertise this possible escape route. Meanwhile China is damaging its relations with South Korea and others.

Mostly, though, China fears that if it acknowledges the true nature of the refugee problem, and allows UN officials access to the thousands of destitute North Koreans on its territory, soon outsiders will demand to poke about Tibet and Xinjiang, where China stands accused of treating its own minorities harshly. The

fear (alas) is overdone. In any case it does not absolve China from its duty to treat fleeing North Koreans humanely. It says a lot about China that it refuses to do so.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

Letters

Jun 20th 2002
From The Economist print edition

The Economist, 25 St James's Street, London SW1A 1HG
FAX: 020 7839 2968 E-MAIL: letters@economist.com

Korean corruption

SIR – Your suggestion that a two-term presidency would reduce graft in South Korea is bizarre ("Family trouble", June 8th). One might equally well argue that this would give corrupt members of the first family, or their hangers-on, twice as long at the trough. A more apt constitutional change would be to reduce the president's overweening powers, which include appointing the cabinet. As a result, ministers (frequently reshuffled) have less clout than presidential chief secretaries. Many in Seoul have long argued that parliament should elect the prime minister, who would choose the cabinet; by dispersing power, cohabitation would reduce temptation.

However, while checks and balances can help, the main lesson from Kim Dae Jung's sad disgrace is that the Korean political class, having imposed better governance on the *chaebol*, must now swallow the medicine themselves.

Aidan Foster-Carter
Shipley, West Yorkshire

Give us some microcredit

SIR – You give a false impression of the work of Grameen Bank ("Mr Elahi's ray of sunshine", May 11th). There is much research on the impact of the bank on borrowers and their families. It shows that over 90% of children of borrowers have attended or are in school. Many progressed to higher education assisted by scholarships and loans from the bank. Child mortality in Grameen-assisted families has declined by 37% and the use of family-planning practices is twice as prevalent as the national average. Borrowers are moving steadily out of poverty at a rate of 5% a year according to the World Bank.

You say that it is not clear where the money to fund Grameen Bank comes from. In fact, our annual reports of the past 18 years list the source of all our funds. At present, 81% comes from depositors and the bank's own funds, the rest from borrowing. In addition, Grameen Bank is monitored and audited by Bangladesh's central bank and is audited every two years by an audit firm of international repute.

Microcredit is an effective tool for eliminating poverty and is operated as a business not a charity. If we are serious about cutting poverty in half by 2015 we should take action to set up strong microcredit programmes and not waste time and energy writing articles based on hearsay and casual observation.

Muhammad Yunus
Managing director, Grameen Bank
Dhaka, Bangladesh

Copper bottomed

SIR – Your article on Zambian copper ("Tragically undermined", June 1st) is rightly pessimistic about developments at Konkola, the joint-venture that Anglo American has decided to leave. However, that is only part of what is happening in the copper-belt; the rest of the picture is far brighter. Quantum Minerals has one mine (Bwana Mkubwa) operating so well that we have invested heavily to expand it. Indeed, we are now importing ore from the Democratic Republic of Congo to process in Zambia.

Elsewhere, we have bought a majority stake in Kansanshi, arguably the largest undeveloped copper resource in the world, with the Zambian government as our minority partner. We are now developing plans to bring this mine into production over the next few years. As a Canadian mining company, we are much encouraged by the opportunities available in Zambia and by the attitude of the government to foreign investors.

Philip Pascall
Chairman and CEO, First Quantum
Vancouver

SIR – Your analysis of the problems of doing business in Africa rings all too true, not only for African mining companies but also African fixed-line telecom carriers that donors are encouraging countries to privatise. What is often described as the most profitable state enterprise in the country usually has tens of thousands of ghost subscribers and revenues that include 20-30% fraud. The network consists of a myriad of switches from every country in the world willing to give away a "freebie" to lock buyers into overpriced spare-parts and consultancy contracts. The entire network must be completely replaced if the enterprise is to have any hope of competing in the long term.

David Green
Vancouver

Counting the displaced

SIR – The figure of 5m internally-displaced persons (IDPs) in the world is cause enough for concern but the reality is considerably more grave (Emerging market indicators, June 1st). At a conservative estimate, 22m-24.5m people presently are displaced within their countries as a result of armed conflict, civil unrest or persecution. Sudan and Angola, for example, have some 4m IDPs each. Exact statistics are difficult to compile, in part because IDPs may be cut off from international access and assistance or compelled to go into hiding because of threats to their life or safety. Yet, acknowledging the full magnitude, scope and severity of the global crisis of internal displacement is critical to mobilising the political will and resources to ensure that millions the world over receive the protection and assistance that they so desperately need.

Erin Mooney
Brookings Institution-CUNY Project on Internal Displacement
New York

Long to reign over us?

SIR – British republicanism is based on two concepts: that the case for a republic is unassailable, and that the British people will eventually realise this and abolish the monarchy. In your mean-spirited and obtuse article on the queen ("Twenty-five out of fifty", June 1st) you incorporate both concepts. They are both equally fallacious.

Out of the ten nations rated by the UN as the freest and most tolerant in the world, the first six are all monarchies—Sweden, Norway, Denmark, the Netherlands, Britain and Canada. In a recent study on political corruption in Western Europe, two republics, Italy and France, were way ahead of the field. As for the demise of the British monarchy, the millions who paid tribute to the queen and the opinion polls that record almost 80% of the British wishing to keep the monarchy would suggest that the monarchy is in good health.

Philip Raworth
Edmonton, Canada

SIR – Dismissing with two sentences the huge success of the jubilee celebrations and the unfeigned affection for the queen by millions of people of all classes appears a deliberate attempt to bury an inconvenient but surprising story simply because of your republican sympathies (The world this week, June 8th). As the monarchy is alive and well and likely to last for many decades more, constitutional reform will clearly have to take place without the removal of Elizabeth II or her heirs.

Robin Hardy
Mells, Somerset

Moose talk

SIR – I was perplexed that the article on elk saliva was accompanied by a photo of a moose ("A biting response", June 8th). However, I recall that our American "elk" is like your "red deer" and your "elk" is our "moose".

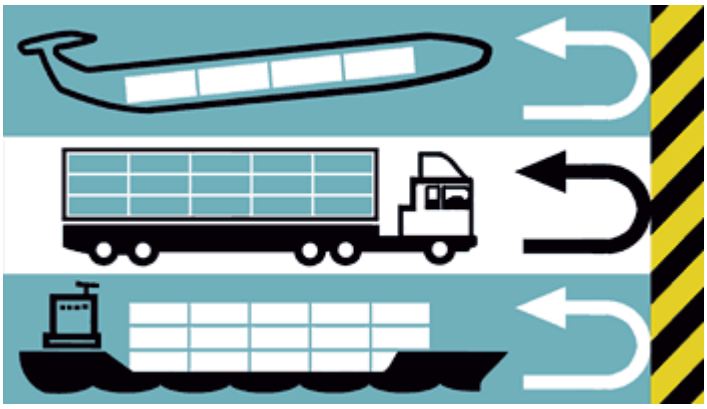
Linda Bell
Livermore, Colorado

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

By invitation

The poor's best hope

Jun 20th 2002 | WASHINGTON, DC
From The Economist print edition



Removing trade barriers is not just a job for the rich. The poor must do the same in order to prosper, says Jagdish Bhagwati

THE launch of a new round of multilateral trade negotiations (MTN) at Doha dealt a needed blow to the anti-globalisers who triumphed at Seattle just two years ago. But it was also important for a different reason. The word “development” now graces the name of the new round. This is unconventional, but it underlines the fact that development of the poor countries will be the round's central objective.

Pleasing rhetoric aside, however, we must ask: What does this mean? The question is not idle. For if the current thinking among policymakers and NGOs is any guide, the answer they would give is not the right one. And that is cause for alarm.

Of course, proponents of trade have always considered that trade is the policy and development the objective. The experience of the post-war years only proves them right. The objections advanced by a handful of dissenting economists, claiming that free-traders exaggerate the gains from trade or forget that good trade policy is best embedded within a package of reforms, are mostly setting up and knocking down straw men.

But if trade is indeed good for the poor countries, what can be done to enhance its value for them? A great deal. But not until we confront and discard several misconceptions. Among them:

• the world trading system is “unfair”: the poor countries face protectionism that is more acute than their own;

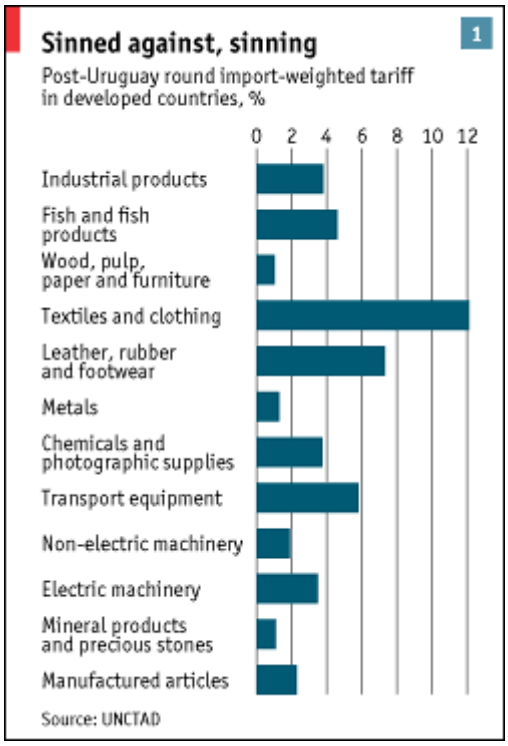
• the rich countries have wickedly held on to their trade barriers against poor countries, while using the Bretton Woods institutions to force down the poor countries' own trade barriers; and

• it is hypocritical to ask poor countries to reduce their trade barriers when the rich countries have their own.

In fact, asymmetry of trade barriers goes the other way. Take industrial tariffs. As of today, rich-country tariffs average 3%; poor countries' tariffs average 13%. Nor do peaks in tariffs—concentrated in textiles and clothing, fisheries and footwear, and clearly directed at the poor countries—change the picture much: the United Nations Council for Trade, Aid and Development (UNCTAD) has estimated that they apply to only a third of poor-country exports. Moreover, the trade barriers of the poor countries against

one another are more significant restraints on their own development than those imposed by the rich countries.

The situation is little different when it comes to the use of anti-dumping actions, the classic “fair trade” instrument that has ironically been used “unfairly” to undermine free trade. The “new” users, among them Argentina, Brazil, India, South Korea, South Africa and Mexico, are now filing more anti-dumping complaints than the rich countries (see chart 1). Between July and December 2001 alone, India carried out more anti-dumping investigations than anywhere else.



The wicked rich?

These facts fly in the face of the populist myth that the rich countries, often acting through the conditionality imposed by the World Bank and the International Monetary Fund (IMF), have demolished the trade barriers of the poor countries while holding on to their own. Indeed, both the omnipotence of the Bretton Woods institutions, and the wickedness of the rich countries, have been grossly exaggerated.

The World Bank's conditionality is so extensive and diffused, and its need to lend so compelling, that it can in fact be bypassed. Many client states typically satisfy some conditions while ignoring others. Besides, countries go to the IMF when there is a stabilisation crisis. Since stabilisation requires that the excess of expenditures over income be brought into line, the IMF has often been reluctant to suggest tariff reductions. These could reduce revenues, exacerbating the crisis.

Then again, since countries are free to return to their bad ways once the crisis is past and the loans repaid, tariff reforms can be reversed. Countries do not “bind” their tariff reductions under the IMF programmes, as they do at the World Trade Organisation (WTO). Equally, tariff reductions may be reversed when a stabilisation crisis recurs and the tariffs are reimposed to increase revenues. My student Ravi Yatawara, who has studied what he calls “commercial policy switches”, documents several instances of such tariff-reduction reversals by countries borrowing from the IMF. For instance, Uruguay in 1971 increased trade protection during an IMF programme that began the year before, and even managed to get another credit tranche the year after. Kenya's 1977 liberalisation was reversed in 1979, the year in which another arrangement was negotiated with the IMF.

Moreover, the comparatively higher trade barriers against labour-intensive products are not usually the result of wickedness, but of simple political economy. Unilateral reductions of trade barriers are in fact not uncommon, and I document them for many countries and several sectors in the post-war period in my new book, “Going Alone: The Case for Relaxed Reciprocity in Freeing Trade” (MIT Press, July). But the fact remains that the developing countries were exempted by the economic ideology of the time, which embraced “Special and Differential” treatment for them, from having to make trade concessions of their own at the successive multilateral trade negotiations that reduced trade barriers after the war. The rich countries, denied reciprocal concessions from the poor countries, wound up concentrating on liberalising trade in products of interest largely to themselves, such as machinery, chemicals and manufactures, rather than textiles and clothing.

The situation changed when the poor countries became full participants. In 1995 in Marrakesh, where the Uruguay round was concluded, action was taken at last to dismantle the infamous Multi-fibre Arrangement (MFA), which—from its birth in 1961 as the Short-term Cotton Textile Arrangement—had

grown by 1974 into a Frankenstein monster incorporating several separate agreements restricting world trade in all textiles. At Marrakesh the MFA was put on the block, and was scheduled to end in ten years.

But even if rich-country protectionism were asymmetrically higher, it would be dangerous to argue that it is therefore hypocritical to suggest that poor countries should reduce their own trade barriers. Except in the few cases of oligopolistic competition, such as that between Fuji and Eastman Kodak (hardly applicable to poor countries) where strategic tit-for-tat is credible, the net effect of matching other people's protection with one's own is to hurt oneself twice over. But there is ample evidence that many leaders of the poor countries have predictably made the wrong inference: that rich-country protectionism excuses, and justifies, going easy on relaxing their own barriers to trade.

In fact, the protectionism of the poor and the rich countries must be viewed together symbiotically to ensure effective exports by the poor countries. Thus, even if the doors to the markets of the rich countries were fully open to imports, exports from the poor countries would have to get past their own doors.

We know from numerous case studies dating back to the 1970s (which only corroborated elementary economic logic) that protection is often the cause of dismal export, and hence economic, performance. It creates a “bias against exports” by sheltering domestic markets that then become more lucrative. Just ask yourself why, though India and the far-eastern countries faced virtually the same external trade barriers in the quarter-century after the 1960s, inward-looking India registered a miserable export performance while outward-looking South Korea, Taiwan, Singapore and Hong Kong chalked up spectacular exports. Just as charity begins at home, so exports begin with a good domestic policy. In the near-exclusive focus on rich-country protectionism, this dramatic lesson has been lost from view.

A strategy for change

Rich-country protectionism matters too, of course. And it must be assaulted effectively. But here, too, we witness folly. The current fashion is to shame the rich countries by arguing that their protection hurts the poor countries, whose poverty is the focus of renewed international efforts. And where action is actually undertaken, the preference is for granting preferences to the poorer countries, with yet deeper preferences for the poorest among them (the least-developed countries, or LDCs, as they are now called). But the former solution is woefully inadequate, and the latter is downright wrong.

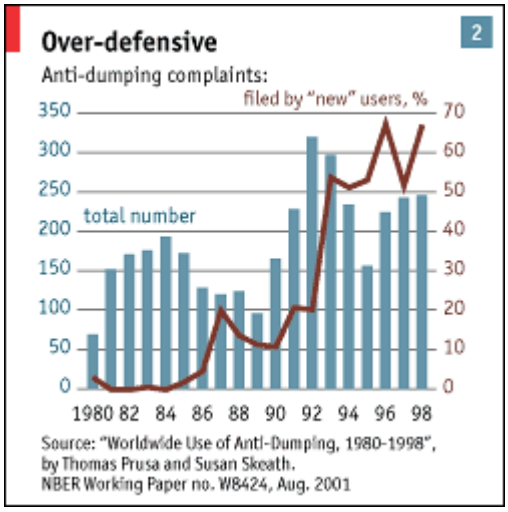
If shame were sufficient, there would be no rich-country protectionism left. Trade economists and international institutions such as UNCTAD and the General Agreement on Tariffs and Trade (the GATT) have denounced the rich countries on this count over three decades. Added support, from charities such as Oxfam, could help in principle. But these charities need both expertise and a talent for strategy, not simply a conscience and a voice. They fall short. By subscribing to the counterproductive language of “hypocrisy” and the rhetoric of “unfair trade” to attack protection by the rich, a charity such as Oxfam, splendid at fighting plagues and famines, does more harm than good.

The argument to rich countries should be made in quite a different way: If you hold on to your own protection, no matter how much smaller, and in fact even raise it as the United States did recently with steel tariffs and the farm bill, you are going to undermine seriously the efforts of those poor-country leaders who have turned to freer trade in recent decades. It is difficult for such countries to reduce protection if others, more prosperous and fiercer supporters of free trade, are breaking ranks.

Beyond this, an effective tariff-reduction strategy requires that we handle labour-intensive goods such as textiles separately from agriculture. The differences between them dwarf the commonalities. Labour-intensive manufactures in the rich countries typically employ their own poor, the unskilled. To argue that we should eliminate protection, harming them simply because it helps yet poorer folk abroad, runs into evident ethical (and hence political) difficulties. The answer must be a gradual, but certain, phase-out of protection coupled with a simultaneous and substantial adjustment and retraining programme. That way, we address the problems of the poor both at home and abroad.

Once this is done, church groups and charities can be asked to endorse a programme that is balanced and just. Such a strategy is morally more compelling than either marching against free trade to protect workers in the labour-intensive industries of the rich nations—while forgetting the needs of poor workers in poor countries—or asking for trade restrictions to be abolished without providing for workers in such industries in the rich countries.

The removal of agricultural protection does not raise the same ethical problems; production and export subsidies in the United States and the European Union go mainly to large farmers. That should make it easier to dismantle farm protection on the grounds of helping the poor. At the same time, however, agricultural protectionism is energetically defended as necessary for preserving greenery and the environment. With the greens in play, protectionism becomes more difficult to remove. But, just as income support can be de-linked from increasing production and exports, so measures to support greenery can be de-linked too. Such new measures, and other environmental protections added as sweeteners, must be part of the strategic assault on agricultural protection.



The target date of Jubilee 2000 helped greatly to focus efforts on the objective of debt relief. Following that example, I and Arvind Panagariya of the University of Maryland suggested well over a year ago—with a nod from Kofi Annan, the UN's secretary general—a Jubilee 2010 movement to eliminate protection on labour-intensive products by 2010. Since agricultural protection is politically a harder nut to crack, 2020, rather than 2010, is probably a more realistic date for its demise. Leaders of rich and poor countries could endorse both targets at the mammoth UN Conference on Sustainable Development in Johannesburg in August.

The perils of preferences

A final word is necessary on the efforts to open rich-country doors. This is often done not by dismantling barriers on a most-favoured-nation (MFN) basis, which reduces them in a non-discriminatory manner, but through grants of preferences to the poor countries. This approach goes back to the Generalised System of Preferences (GSP), introduced in 1971 through a waiver and then granted legal status in 1979 with an enabling clause at the GATT. Under this, the eligible poor countries were granted entry at preferentially lower tariff rates.

GSP did little for the poor countries. The eligible products often excluded those on which poor countries had pinned their hopes of increasing exports. Thus the United States'GSP scheme excluded textiles, clothing and footwear. Upper caps were also introduced. The United States imposed a $100m limit on exports per tariff line, per year, per country; beyond this limit, the preferential rate vanished. Even the benefits granted were not “bound”, and could be varied at a rich country's displeasure. Thus, when India was put on the Special 301 list in 1991 and the United States trade representative determined unilaterally that India's intellectual-property protection was “unreasonable”, President George Bush senior suspended duty-free privileges under GSP for $60m in trade from India in April 1992.

Preferences were also often dropped for commodities when they began to be successfully exported, a fact documented in a forthcoming study by Caglar Ozden and Eric Reinhardt of Emory University. Rules of origin served to curb exports, too. Exported items had to satisfy stringent local-content specifications (for example, shoes had to have uppers, soles and laces made locally) to qualify for GSP benefits.

The rich countries are still going down this preferential route today. The United States has introduced the Africa Growth and Opportunity Act (AGOA), while the EU has brought in the “everything but arms” initiative, properly known as the EBE, to eliminate trade barriers for the 49 LDCs. Yet virtually every drawback of GSP applies to these schemes as well. If anything, they are worse. Under the AGOA, for example, preferences for African garments are tightly linked to reverse preferences for American fabrics.

Since preferences typically divert trade away from non-preferred countries, they tend to pitch poor nations against each other. They are also a wasting asset, since they are relative to an MFN tariff that will probably decline with further multilateral liberalisation. And since they are non-binding and can be readily withdrawn for political reasons, investors are not likely to be impressed by them.

Preferences sound attractive and generous, and the poor countries have accepted them as such. But this has been a mistake. There is no good substitute for the MFN reduction of trade barriers in the rich countries. It should go hand in hand with enhanced technical and financial assistance. By focusing this help preferentially on the poor nations, the poor should be able to exploit the trade opportunities that are opened up for them by non-preferential treatment. This is the only way ahead.

Jagdish Bhagwati is University Professor at Columbia University and Andre Meyer Senior Fellow in International Economics at the Council on Foreign Relations. His most recently published book is “Free Trade Today” (Princeton).

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Fiscal policy

A decade of deficits

Jun 20th 2002 | WASHINGTON, DC
From The Economist print edition

America's budget looks unlikely to return to surplus anytime soon

SOMETIME this summer, when most of Washington has left for the beach, the Bush administration will release some news it would rather bury: that America's federal budget is spilling red ink and is likely to stay that way. This year's deficit may reach around $160 billion (1.5% of GDP). Using some heroic assumptions, Mr Bush may still cling to the idea of a balanced budget by 2005, but who will believe him? Unless something dramatic happens, America faces budget deficits, albeit smaller ones than in the 1980s, for the foreseeable future.

The speed of fiscal decline is remarkable. A year ago, the Bush administration claimed it could live within the current official ceiling for government debt of $5.95 trillion until 2008. Now the Treasury Department desperately needs Congress to raise that ceiling by June 28th. The Treasury has had to delay the announcement of routine debt auctions because of uncertainty about how much the government can borrow.

Why is Mr Bush so short of cash? The nastiest surprise has been a dramatic drop in government income. The Congressional Budget Office, the official budget watchdog, says that for the first eight months of the fiscal year, which ends on September 30th, revenues were $161 billion lower than last year. Tax receipts have come in much lower than expected. Individual income-tax payments in April were 36% lower than a year ago. Even if some of that shortfall is made up in the next few months, budget experts expect revenues to be around $150 billion lower than last year—a shortfall of around 7.5%.

Three things are to blame for the lower tax receipts. The slowing economy is one. Another is Mr Bush's tax cutting: last year he cut marginal rates for individuals; this year's stimulus package cut taxes for many firms. The last culprit is Wall Street's lacklustre performance, which caused a big drop both in capital-gains-tax receipts and in taxes paid on cashing in stock options.

The big question is how much of this revenue shortfall will prove permanent. Tax receipts rose sharply as a share of GDP in the late 1990s. If, as many suspect, much of that sudden rise was due to the stockmarket bubble, then those receipts may prove ephemeral. Richard Kogan at the Centre for Budget

How much of this revenue shortfall will prove

and Policy Priorities reckons that a third of this year's revenue shortfall could well prove permanent.

permanent?

That suggests that even with healthy economic growth, government revenues could be $400 billion-600 billion lower than expected over the next decade. That alone could nearly wipe out Mr Bush's margin for error. According to the CBO's most recent analysis, Mr Bush's proposals will generate a cumulative surplus of just $680 billion over the next decade.

The Bush numbers also do not allow for inevitable changes in the tax system. For instance, his budget assumes that the number of people paying the “Alternative Minimum Tax” (a tax originally designed to make sure rich people did not get away with cheating Uncle Sam by claiming too many exemptions) will rise from 2m in 2001 to 35m by 2010. Everybody in Washington knows that such a high proportion—nearly one in three taxpayers—would be politically impossible. So the AMT will have to be rejigged. A study from the Brookings Institution argues that such a reform could cost the government up to $700 billion over the decade.

To be fair, a few things that could change the current picture would make it less gloomy. Unexpectedly fast productivity growth would quickly, and dramatically, improve the revenue forecasts. Judging by how well America's productivity has held up so far, that is not a faint hope. Unfortunately, that intriguing possibility must be set against a political near certainty: higher than expected spending.

The Bush White House is certainly talking tough. Sizeable increases in defence spending, it argues, should be made up for by belt-tightening elsewhere. In the words of Mitch Daniels, Mr Bush's top budget man, this administration will not stand for “guns and butter”.

Sizeable increases in defence spending should be made up for by belt-tightening elsewhere, according to the White House

Would that the facts supported this boast. According to the CBO's latest report, spending in the first eight months of fiscal 2002 was 10% higher than in the same period last year. Discretionary spending outside defence (where Mr Bush wants to be tough) rose by 17% last year and this year, so far, is going up at a 9% rate.

With both chambers narrowly divided, and elections close, Congress is in the mood to spend—and there is little to stop it. In the 1990s, strict controls curbed the politicians' appetites to write cheques. There were fixed caps on discretionary spending and special rules that forced lawmakers to offset any tax cuts or entitlement increases with cuts elsewhere. Sadly, when surpluses began to appear in the late 1990s these rules were increasingly ignored. Now most have lapsed, and not enough politicians are keen to bring them back.

That leaves Mr Bush's veto pen as the only effective check on spending. And for all the talk, he has yet to use it. In fact, Mr Bush has been merrily signing expensive legislation. The farm bill, for instance, added $73 billion in new spending over the next decade.

Worse, Mr Bush himself could be one of the worst offenders. He recently promised a big rise in foreign aid. Though White House officials insist that the new Department of Homeland Security can be created at no cost, no one believes them. As Norman Ornstein of the American Enterprise Institute argues, “it boggles the mind” that you can reorganise 170,000 people at no additional cost. He reckons the bill will run to “tens of billions of dollars”.

The era of deficit politics

So the idea that discretionary spending will fall in real terms (which the Bush budget assumes) seems fanciful. Even if it just rose in line with the population, that alone would add over $400 billion to spending over ten years. And that excludes spending increases on entitlements. Given rising health-care costs, Congress would surely be forced to put more money into Medicare. Both parties in Congress are discussing expanding Medicare to include prescription-drug coverage in a more costly way than the Bush budget allows for.

Everything points in one direction: continuing deficits. In a recent analysis, economists at Goldman Sachs assumed weak revenues and a return to the spending patterns that held before the 1990s (when spending grew 1% faster than GDP). Those two assumptions alone imply deficits of around 1% of GDP rather than the return to surplus that the administration foresees (see chart).

The argument is no longer whether deficits are inevitable, but what to do about them. The Democrats want to revisit Mr Bush's tax cuts. Senator Joseph Lieberman, a potential presidential candidate, recently suggested that parts of the Bush tax plan should be postponed if the economy remains weak. The Democratic-led Senate last week refused to repeal permanently the estate tax. The Republicans will not touch the tax cuts; indeed they want them all to be permanent. It is spending that must somehow be stopped (but not, please, this election year). Welcome to the era of deficit politics.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Forest fires

The blazing days

Jun 20th 2002 | SEATTLE
From The Economist print edition

EPA

Fury and horror in the West

FIRES burn down forests in Europe, in Siberia, in Australia. But, for sheer ferocity and frequency, the worst place in the world is probably the western half of the United States. It is a problem partly of nature and partly of nurture. Millions of trees grow in areas that are dry and hot for much of the year. But America's problem-solving approach to life is also a culprit. A century ago most woodland fires were stamped out as quickly as possible because they destroyed valuable trees. Then it came to be believed that small fires could sometimes be a useful tool, keeping inflammable underbrush in check.

The problem is keeping them small. Since the early 1970s, fires have become hotter and bigger. The fires of 2000 were the worst in a decade, burning more than 8m acres and costing a record $1.3 billion. The next year, though less fiery, still cost $700m. So far this year, more than 1½m acres have burned, and the season is barely under way in Idaho, Montana, Colorado and Wyoming, the most fire-prone states, where fires burn well into September.

One, the Hayman fire in Colorado, has already destroyed more than 100,000 acres and cost $9m to fight. By mid-June the total national bill was $100m, a figure that could soar if the weather stays hot and windy. The Hayman fire, it turns out, was started by an employee of the Forest Service, a 38-year-old woman named Terry Barton. She told officials she had smelled smoke when patrolling the area on June 8th. Then she admitted causing the fire by burning a letter from her estranged husband. Now she is charged with starting the fire “maliciously”, having hoped to get the credit for stopping it. She could get 65 years in jail.

Even worse were the pictures taken on June 17th of a water-bombing aircraft crashing in California. The wings of the aircraft, a four-engine C-130A built in the 1950s, buckled upwards and then peeled off as the aircraft made a low-level run over a fire north of the Yosemite national park. Its pilot, co-pilot and flight engineer, all from Wyoming, were killed. A fire engine en route to the accident crashed an hour later, injuring the driver. The same day, three firefighters were burned badly in a fire in southern California. In the West, they are longing for the welcome rain of autumn.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

The Bush doctrine

Caveat pre-emptor

Jun 20th 2002
From The Economist print edition

Pre-emption is easier said than done, but it is gradually being defined

AP

The CIA closes in

CAN George Bush's new doctrine of pre-emption provide the organising principle for the post-September 11th world that the policy of containment did for the West during the cold war? He told cadets at West Point earlier this month that Americans must be ready for “pre-emptive action when necessary” to defend liberty and lives. This week, it emerged that Mr Bush has given the CIA permission to kidnap Saddam Hussein (though the chivalrous spies can kill the brute only in self-defence). Now his aides are weaving pre-emption into a new national security strategy to be presented in the autumn.

In fact, the idea has been germinating in the president's mind for some time. Ever since September 11th, he has spoken of the attacks marking a new era that will require new ways of doing things. Back in November, at the United Nations, he talked of the UN's founding mission: to oppose aggression and the wicked “early, decisively, and collectively”. “That evil has returned,” said Mr Bush, “and that cause is renewed.”

The evil to be confronted comes in two guises, he explained in January in his famous “axis of evil” speech: terrorists wanting weapons of mass destruction; and regimes, such as Iran's, Iraq's and North Korea's, that are developing such technologies and might be tempted to pass them on. To the evil trio he promised that America “will not wait on events while dangers gather.” Yet military force, his aides explained even then, would not necessarily be a first resort, though America was prepared to use all means at its disposal.

This week the secretary of state, Colin Powell, was again pointing out that pre-emptive action need not mean military action. There are plenty of other tools, such as arrests, seizures, sanctions and other diplomatic measures, that America and its friends can use. Condoleezza Rice, the national security adviser, has used the blockade of Cuba in 1962, which stopped the Soviet Union putting nuclear-tipped missiles on the island, as an example of ways to “forestall certain destructive acts against you by an adversary.” (Though that followed the failed “Bay of Pigs” effort in 1961 to depose Fidel Castro.)

The chivalrous spies represent another non-military means: were they to whisk Saddam away and were Iraq to submit to thorough UN arms inspections, Mr Bush would not need to contemplate a pre-emptive invasion, which would require, some generals say, up to 200,000 troops. Interestingly, Mr Powell has also been stressing that force, if used pre-emptively, must be decisive. That clarification is surely driven by his skirmishes with the bash-Iraq civilians at the Pentagon, who think that the cowardly generals are demanding unnecessarily high numbers of troops.

Nor is pre-emption, in whatever guise, ideally a unilateral affair. Administration officials repeatedly point to a big difference from the cold-war years: that the major powers, including Russia and China, are working together.

Codifying the Bush doctrine into something more formal would reassure sceptical allies. Like the containment policy, it would help shape spending priorities at home, and the deployment of diplomatic, economic and military power abroad. At a minimum, operating pre-emptively will require far better intelligence and better co-operation with other countries' intelligence services. But all this is not easy to do: outsiders have been watching Iraq for years, but no one is sure where all its nasty weapons are kept.

Ultimately pre-emption is a means not an end. A doctrine of pre-emption that suits the United States could also suit other countries with less worthy motives, including the axis of evil. If he is to stave off criticism that he is simply writing a new law for the jungle, Mr Bush needs to be clear not just about the limits to his new doctrine, but also about his aims.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

The Catholic bishops

Not ready for defrocking

Jun 20th 2002 | DALLAS
From The Economist print edition

The hierarchy gets tough, but draws back from the ultimate penalty

EPA

Get article background

AFTER months of awful revelations of sexual misconduct by priests, America's Roman Catholics expected a great deal from the bishops at their semi-annual meeting in Dallas last week. The bishops' task was to come up with a charter for the protection of children and to restore trust in their leadership. They came up with a national policy and, at last, an apology for their "tragically slow response". But in their anxiety not to offend the Vatican, they failed to restore trust in the pews.

The charter, approved by an overwhelming majority of the hierarchy and binding on all America's bishops if it gets past the Holy See, is undoubtedly the toughest ever devised to protect young people from predatory priests. It requires that all child-abuse allegations be reported and insists on the removal of any priest accused in the future. The laity is given a role in policing this. A national review board will be created, with Frank Keating, a Catholic former governor of Oklahoma, at the head of it, to publish reports on each diocese. Bishops and cardinals will not be allowed to sign confidential settlements in civil molestation lawsuits.

But the new guidelines do not say how much influence, if any, the board will actually have, nor how quickly priests should be removed from their posts after allegations come to light. It does not cover the one in three American priests who are members of religious orders (there will be a separate meeting in August, between the bishops and the heads of the orders, to sort that out). Above all, the charter may come to nought if the bishops fail to enforce it at diocesan level. Many of the same guidelines were approved by the Conference of Bishops in 1992, but never implemented.

Priests who are removed from their ministry will still be priests. The bishops, who debated this subject for hours, did not want to apply the ultimate penalty. Some were anxious that Christian forgiveness was being overlooked. They decided that the accused would retain the title of priest and would be allowed to celebrate Mass in private. But they would be barred from wearing clerical garb, especially their distinctive collars.

Many Catholics feel this did not go far enough. Barbara Blaine, head of Survivors Network of those Abused by Priests (SNAP), a vocal victims' group, points out that many of the allegations were made beyond the statute of limitations, so there can be no criminal prosecution. She argues that the only acceptable punishment for priests who have abused young people is formal defrocking, however belated.

But defrocking is a long, convoluted process, and the Vatican—though it does not have to approve each case—is most reluctant to lose priests. Some bishops suggested afterwards that they had backed away from zero tolerance because they did not want a confrontation with the Holy See. The Vatican is said to be questioning already whether the charter is too harsh. And, if it does not approve these guidelines, they cannot become church law.

Defrocking is a long, convoluted process, and the Vatican is most reluctant to lose priests

It is clear that the Vatican still fails to understand the gravity of what has happened in America, and the fury of its American flock. One Catholic journal in Rome has blamed the

scandal on anti-Catholic American journalists. In fact, the loudest complaints are coming from the pews rather than the press. Four in five American Catholics want any bishop who knowingly transferred an erring priest or covered up abuse to be removed. “Accountability” is said to be the chief topic for the next bishops' conference in November, and then, too, they will have to deliver. As one Catholic puts it, “Power is in the pews...and in our purses.”

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Boondoggles to make the mind boggle

Hard corps

Jun 20th 2002 | VICKSBURG, MISSISSIPPI
From The Economist print edition

After two centuries, maybe it's time to reform the Army Corps of Engineers

YOU can park your car and walk around on the proposed site of the world's largest hydraulic pumping plant. It's a short drive out of Vicksburg, on the Yazoo River, near where it flows into the Mississippi. There's not a lot to look at. Endless acres of gently undulating farmland drift off towards a hazy horizon. It is hard to imagine what it must be like in a flood, when the pressure of water surging down the Mississippi is so great that it actually prevents the Yazoo from flowing forwards. When the levee at Mounds Landing, not very far from here, broke during the great flood of 1927, it sent water cresting over the roofs of houses in Yazoo City, 75 miles away.

The Yazoo pump is meant to prevent flooding under less extreme conditions than those of 1927. Building it is a job for the Army Corps of Engineers. This week, the embattled federal agency—which is responsible for the nation's dams, locks, barge channels and flood-control systems—was the subject of a quietly momentous Senate hearing. “I'm willing to state categorically that the corps must change,” said its military boss, Lieutenant-General Robert Flowers.

The corps has had a tough few years. Until recently, politicians have loved it—big water projects mean lots of jobs and contracts for their constituents. But the agency has wildly miscalculated the costs and benefits of many of its projects. It emerged in 2000, for instance, that corps officials had manufactured a case for spending $1 billion to enlarge barge locks on the Mississippi and Illinois rivers.

In the House, the Corps of Engineers Reform Caucus, a bipartisan coalition, was formed in 2001. Robert Smith, the senior member of the Senate Environment and Public Works Committee, has filed a bill to overhaul the agency, co-sponsored by John McCain and Russell Feingold. The bill would require independent review of all corps projects. The Senate majority leader, Thomas Daschle, has now put his weight behind the proposal.

The White House, too, is unsympathetic. When Michael Parker, the former civilian chief of the corps, complained about the president's suggested 10% cut in the agency's budget (to a mere $4.2 billion) earlier this year, he was summarily sacked.

However, the corps, true to its stated commitment to “growth opportunities”, continues to pursue any number of expensive, contentious projects. The Yazoo pump will drain 925,000 acres of one of the most sparsely populated regions in Mississippi. The pump will force a staggering 6m gallons of water a minute over an existing levee, in order to prevent the Yazoo backwater area from flooding.

The project was authorised by Congress in 1941. It languished until a few years ago, when intervention by Senator Thad Cochran, a Mississippi Republican, made sure the local farmers would not have to help pay for it. The pump will cost more than $180m in construction, plus an additional $1m or so a year to operate, for the next 50 years.

An economic study commissioned by the Environmental Protection Agency concluded that the pump's cost would be six times its maximum benefit to farmers. The EPA says the pump will damage almost ten times more wetlands than the corps estimated, and that it will not protect a single home from flooding.

Several hundred miles up the Mississippi, in Missouri, the corps wants to finish off another controversial project to protect marginal farmland. The first stage of the New Madrid floodway, a $65m plan to lock the river in its channel, will involve closing a 1,500-foot gap in the existing levee, building two pumps and channelling a tributary. As with the Yazoo pump, local farmers have been excused from standard cost-sharing conditions, in this case because of the supposed flood-control benefits the project will bring to the town of East Prairie.

Carry on, men

The project is being pushed by the local congresswoman, Jo Ann Emerson, a Republican. Yet the corps acknowledges that the area would still flood once every ten years anyway. Moreover, having sealed up the only remaining break in the levee, the agency would nevertheless be required by law to blow a huge hole in the bank in the event of a 100-year flood, to relieve pressure on cities farther upstream.

Conservationists claim the project would destroy 36,000 acres of wetlands and cut the river off from its largest remaining stretch of backwater flood-plain. Tim Searchinger of Environmental Defence says that an alternative project, which would improve stormwater drainage in East Prairie and elevate a nearby stretch of road, “would eliminate flooding within East Prairie without environmental costs”. That could be done for $11m.

The debate over the future of the corps will come to a head this summer, as Congress turns its attention to the biennial Water Resources Development Act (WRDA), the bill that authorises new water projects. Critics threaten that there will be “no WRDA without reform”.

The corps, which would prefer to reform itself, can point to one or two recent successes, notably its involvement with the restoration of the Everglades and the Kissimmee River, both in Florida. Its best protection, though, is the clout of a few congressional allies. Trent Lott and Christopher Bond, Republican senators from Mississippi and Missouri, have vowed “no WRDA with reform”. Given 227 years without any real change, that position looks increasingly hard to defend.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Jesse Ventura

Back to boredom

Jun 20th 2002 | MINNEAPOLIS
From The Economist print edition

The departure of Minnesota's governor isn't quite the end of third-party politics

AP

All smoke and mirrors

JESSE VENTURA, the one-time professional wrestler who in 1999 became the governor of Minnesota, sat down on June 18th in a radio station in St Paul. As often happens when he has something big to say, he glowered, his head shook, his leg pumped up and down. “I will not run again,” he said, revealing that his heart was no longer in the job. The journalists sighed; Mr Ventura is always a good story. But most Minnesotans seem content. From a high of nearly 70% in the opinion polls in 1999, the governor's approval rating has dropped to about 40%.

In his short time in the job, Mr Ventura managed some notable innovations. But, in the end, he may chiefly be remembered for bluff, bluster and controversy. He became a classic “celebrity”: well-known only for being well-known.

Back in 1999, many people thought he could be a powerful force for change in American politics. His campaign for the governorship mobilised an unlikely alliance of young people and older malcontents who no longer felt affection for either of the two big parties. He was the antithesis of the career politicians he was running against. He told it like it was. Above all, he was not boring.

The first stages of Mr Ventura's term of office did bring glimmers of a new order. He supported the Democrats' bid to spend more money on education and to finance a new metro line. Yet he aligned himself with the Republicans in cutting income taxes. He used the popularity this gave him to push through some of his own ideas, such as an overhaul of the state's property-tax system in order to give the state more control over the financing of education. He also sent taxpayers rebate cheques in each of his first three years. The property-tax reform, and those “Jesse cheques”, may prove his most memorable achievements.

But Mr Ventura squandered his winnings. He flew around the country too much. There were too many appearances on late-night talk shows, too many cameo roles in soap operas, too much promotion of his books, often while Minnesota's legislature was still at work. He called the lawmakers “gutless cowards” for rejecting his attempt to eliminate one house of the legislature. He called the media “jackals”. He often behaved more like the wrestler he had been than the leader of the state he was now supposed to be.

As his poll ratings fell, the legislature shut him out of the political process. Bills that many Minnesotans urgently wanted to become law were signed only at the eleventh hour, and sometimes not at all.

Critics are tempted to say that Mr Ventura's governorship has been an indictment of third-party politics. But Minnesota under Mr Ventura never had a real third party. He had no solid body of supporters in the legislature. And the Independence Party was a party in name only; having helped to create it after the Reform Party broke apart in 2000, Mr Ventura did little to make it more than a vehicle for his own ego. As one legislator bitingly said, “We've got two parties and a celebrity.”

Now, after four years of striding the stage, Mr Ventura is walking sulkily off. Many of the state's schools are having to reduce their activities for lack of money, a problem caused in part by Mr Ventura's property-tax overhaul. Traffic congestion continues to rise, for lack of measures to modernise the roads. Mr Ventura will now ply his fame in the private sector. As he himself misquoted the Grateful Dead, a

fabled (but faded) rock group, “What a strange trip it's been.”

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Historical analysis

Dismembering Bill Clinton

Jun 20th 2002 | FAYETTEVILLE, ARKANSAS
From The Economist print edition

No, not in that way

Get article background

EARLIER this month, scholars from around the country descended on Fayetteville, a quaint college town in the Ozark Mountains, for a two-day symposium at the Blair Centre of Southern Politics and Society at the University of Arkansas. The topic: the Clinton presidency, warts, cigars and all. The former president was deliberately not invited.

Though barely 17 months out of office, and with his legal bills still unpaid, Mr Clinton is generating frenzy in the academic world. Professors are furiously writing papers and designing courses about the former president, and students are eagerly signing up. Even Mr Clinton is helping to design a curriculum for students who will attend his planned Clinton School of Public Service at the future Clinton presidential library in Little Rock, starting in the autumn of 2004.

At the University of Arkansas in Little Rock, Margaret Scranton, a Republican political science professor, is spending the summer developing a class focused on the Clinton administration. Former Clintonistas such as Bruce Lindsey, who still works for Mr Clinton and seldom talks about the former president, plan to visit the class and offer insight. Ms Scranton even hopes to attract speakers such as Bob Dole, Mr Clinton's Republican rival in 1996, David Kendall, his lawyer, and Newt Gingrich, his nemesis from the mid-1990s. It is not yet clear whether Mr Clinton himself plans to grace Ms Scranton's classroom with his presence.

Some historians feel uneasy about all this. It may be better to wait, they say, until statements can be verified through the presidential documents that the Clinton library will house one day. Others disagree. Now is the best time, they insist, to learn about a president: when he is still alive and his advisers, aides—and interns—still have vivid memories of him. Besides, when the world revolves around the daily and hourly news cycle, who wants to wait for the plodding verdict of history?

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Lexington

Karl Rove's fading ambition

Jun 20th 2002
From The Economist print edition

The president's beloved Turdblossom was a better adviser when he was thinking big

IF THE mark of a successful political Svengali is his ability to stay in the shadows, then Karl Rove is not doing a very good job. The latest blaze of publicity was ignited by a computer disc that a hapless White House intern dropped in the street. (What is it with these interns?) The disc contained Mr Rove's masterplan for the mid-term elections, including an embarrassing observation that the president's brother, Jeb Bush, is vulnerable in Florida. Past blazes of publicity have been ignited by Mr Rove's business dealings with Enron and his penchant for telling his Republican minions to “run on the war”.

Such spells in the limelight are hard to avoid when you wield as much power as George Bush's senior adviser for strategic initiatives. Mr Rove is at the very heart of the Bush machine: de facto head of the Republican National Committee, vetter-in-chief of Republican candidates, linkman between the White House and the conservative movement, and a one-man ideas factory. His fingerprints can be found on all Mr Bush's most controversial decisions, from stem-cell research to steel tariffs.

Mr Rove has been close to Mr Bush since at least 1977, when he moved to Texas to work for George Bush senior. He helped to create Texas's modern Republican Party, running Mr Bush's two successful campaigns for the governorship. Having helped sell the young governor to Republican elders, he then masterminded the 2000 campaign. Mr Bush thinks so much of the 51-year-old schemer that he has bestowed on him not one but two nicknames: “Boy Genius” and “Turdblossom”.

Most political consultants regard getting their man into the White House as reward enough in itself. Lee Atwater contented himself with running the Republican National Committee, James Carville proclaimed himself too much of a hired gun to work as a public servant. Yet Mr Rove installed himself at the heart of the White House. Now his influence is set to grow further. Karen Hughes, Mr Bush's other ear-bender, is retiring, just as the White House is starting to focus on Mr Rove's home territory—the November elections and the 2004 presidential contest.

The fashionable worry about Mr Rove's increasing power is that he is pushing his boss too far to the right. It was Mr Rove who persuaded Mr Bush to put strict limits on stem-cell research (against Mrs Hughes's advice). It is Mr Rove who is arguing most fiercely against the inheritance tax that conservatives loathe.

Yet the Boy Genius is far from being a prisoner of the right. He infuriated America-firsters by proposing a giant amnesty for illegal Mexican immigrants. He infuriated the *Wall Street Journal* by supporting steel tariffs. He infuriated almost everyone in the conservative movement by supporting moderates in the Republican primaries this year—most notably Richard Riordan, making a doomed attempt to run for governor of California.

The real problem with Mr Rove is his growing belief that politics is about bribing specific pressure groups

The real problem with Mr Rove is his growing belief that politics is about bribing specific pressure groups, such as steel workers in important Rustbelt states, rather than pursuing the national interest. This makes a public mockery of Mr Bush's (admittedly always fanciful) claim to be a new sort of politician, who does not abide by Washington deal-doing. Nothing could

be more Washingtonian, or downright Clintonian, than calculating the electoral advantage to be squeezed from every action.

What would Mark Hanna have said?

Yet it also represents a much more significant volte-face: a betrayal of Mr Rove's plan to transform his party. Two years ago, Mr Rove, a history buff who brought 148 boxes of books to Washington with him, frequently spoke about his admiration for William McKinley. McKinley's election victory in 1896 ended a long period of deadlocked politics, ushering in an era of Republican dominance. For this, McKinley had to thank his own Turdblossom, a political seer called Mark Hanna who masterminded the reorientation of the party, bringing into its fold the rising industrial elite and the new urban political machines.

Mr Rove made a good start at revamping the Republican Party. One in three Latinos voted for Mr Bush. The recruitment of Colin Powell and Condoleezza Rice to high-profile jobs demonstrated that there is more to Republicanism than angry white males. A mammoth education-reform bill showed that the party was serious about public education.

Yet the current round of pandering could destroy any lingering hope of a McKinley-style transformation. You cannot inaugurate a new era of Republican dominance by trashing a principle, such as free trade. You cannot break the mould of politics by kowtowing to vested interests. Vested interests only grow hungrier with the gorging: the textile industry is now demanding the same privileges as steel.

Mr Rove's defenders say that he is dealing with a political stalemate. The Florida recount profoundly shocked a party that had been confident of a clear victory. The loss of control of the Senate destroyed remaining dreams of a new Republican majority. Isn't Mr Rove just being prudent to assume that the next presidential election could be as tight as the previous one?

Yet the best way to ensure a tight election is to govern as if you expect one. Mr Bush's first year was successful precisely because he governed as if he had won by a landslide. The steel decision was calamitous, politically as well as economically, because it projected an image of weakness, indeed cravenness, at a time when Mr Bush enjoyed astronomical approval ratings.

A darker interpretation is that Mr Rove's pandering is the easy option: it gives him room to dispense favours for clients and perform electoral conjuring tricks for his boss. The longer he remains in Washington, the less he talks about a rebirth of Republicanism and the more he indulges in Beltway power-games. Mr Rove's problem is not that he is too ambitious, as his enemies claim. It is that he has allowed his Texas-sized ambition to shrink to the proportions of a small town on the Potomac.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

The politics of privatisation

Arequipa's anger, Peru's problem

Jun 20th 2002 | LIMA
From The Economist print edition

AP

A popular revolt against privatisation spells trouble for President Toledo's government

Get article background

FOREIGN tourists know Arequipa for its elegant colonial churches of white volcanic stone, its crisp Andean air and its verdant hinterland. But for the past week, Peru's second city has had an uglier face. Mobs rampaged through the city centre, smashing windows in government offices and banks, building barricades from paving stones, and blockading the airport. After one man died and 200 were injured, Peru's president, Alejandro Toledo, imposed a state of emergency and a curfew, and sent the army to secure the city.

The cause of the mayhem was the privatisation of two small electricity generators serving Arequipa and southern Peru. On June 14th, they were sold for $167m to the only bidder, Belgium's Tractebel. After protests spread to other cities, on June 19th a deal was struck: both sides agreed to abide by a judge's ruling on the sale, and Fernando Rospigliosi, the interior minister, resigned. If we inadvertently insulted Arequipa, we're sorry, said the government. The protestors claimed victory.

The ferocity of the protests raised fears about Mr Toledo's future. He took office just 11 months ago, restoring democracy after a decade of Alberto Fujimori's authoritarian rule. Yet already his hold on power looks shaky. “Democracy is under threat,” Mr Rospigliosi had said. Worse for the president, Arequipa and the south voted heavily for him last year, and Juan Manuel Guillen, the city's mayor, was once his close ally against Mr Fujimori.

Behind Arequipa's rebellion lie two factors that apply more widely in Latin America: provincial grievance, and mistrust of privatisation and foreign investors. Two years ago in Cochabamba, in Bolivia, a similar uprising ejected a foreign consortium which had won a concession to manage the water company.

Arequipa is smarting from hurt regional pride. Formerly an important business and political centre, it suffered under Mr Fujimori from the centralisation of power and government spending in Lima, and from a trade opening that left its old-established industries struggling to compete. Its banks and brewery were swallowed up by outsiders, while other businesses moved to the capital.

Opinion polls showed overwhelming opposition to the electricity sell-off. But the government went ahead,

mainly because it had agreed with the IMF to cut the fiscal deficit this year in part by raising $700m from asset sales.

Privatisation has “a very bad image” in Peru, admits Ricardo Vega Llona, the official in charge of it. He blames that on Mr Fujimori and his jailed spy chief, Vladimiro Montesinos. They raised $9 billion from privatisation. Not all of the proceeds were squandered: $1.8 billion was spent on anti-poverty programmes, around the same to pay off debt, and $2 billion is in a contingency fund to pay state pensioners. But $1.5 billion went on arms purchases, which involved huge kickbacks stashed in foreign bank accounts.

To the average Peruvian, privatisation means not just corruption but higher utility tariffs and job losses. That is partly because governments have failed to communicate its benefits. Take electricity, which began to be privatised in 1993. Tariffs initially rose as subsidies were removed, but have since fallen. And the privatised companies say that because of increased investment, jobs in the industry have increased. Similarly, the number of telephone lines has tripled since privatisation in 1994; then, it took 33 months to get a phone, while now it takes days.

To the average Peruvian, privatisation means not just corruption but higher utility tariffs and job losses

Mr Toledo's commitment to privatisation has earned him credit with investors, helping Peru's incipient economic recovery. But should the electricity sales now be reversed, his government will look weak and divided. Mr Toledo inherited from Mr Fujimori a country whose democratic institutions had been destroyed or debauched and a people who felt betrayed. But the president, an economist of Andean Indian descent, has made things harder for himself. He has peppered the provinces with promises of local infrastructure and new jobs. He has flip-flopped on touchy issues, such as privatisation, saying one thing in rallies and another to investors in New York. Now Arequipa has called his bluff. During the campaign, Mr Toledo signed a pledge to keep the city's electricity firm in state hands. Peru's economic weakness forced him to reverse that, he says. Mr Guillen bluntly calls him a liar.

Nor has Mr Toledo helped himself by calling elections for new regional governments for November, without first fixing clear limits on local spending and powers. Ambitious local politicians are outdoing each other in opposing the government in the name of local utopias. In the voting, the president's makeshift party is likely to be wiped out by Apra, the populist opposition party, and by independents.

The assault on Mr Toledo's authority will make it harder for him to stick to his plans for economic reform. That bodes ill for Peru, and for Arequipa. The city's future lies in developing new export markets, says Pablo Alcazar, the president of the chamber of commerce. For that it needs new roads and an international airport. Further south, Chile has granted concessions to private investors to upgrade its transport systems. But in Peru, Mr Alcazar admits, such concessions have now become a controversial issue.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Politics in Brazil

Deal making

Jun 20th 2002 | SAO PAULO
From The Economist print edition

Both the main presidential candidates are gaining allies

AP

Can Rita lift Serra?

CONFOUNDING appearances of irreparable division, the broad centre-right coalition that backed Fernando Henrique Cardoso through two presidential terms is starting to unite around his chosen candidate in October's election, Jose Serra. On June 15th, Mr Serra won the endorsement of the coalition's biggest party, the catch-all Brazilian Democratic Movement (PMDB). Politicians from other coalition parties are scrambling to do the same.

That was not inevitable. Mr Serra, a former health minister from Mr Cardoso's Social Democratic Party, began his campaign weakly. The coalition's other parties toyed with running their own candidates or joining opposition groups. But recent opinion polls show that Mr Serra should at least force a run-off ballot against the current frontrunner (but three times election-loser), Luiz Inacio Lula da Silva of the left-wing Workers' Party (PT). That seems to have reassured the waverers.

The PMDB backed Mr Serra during a farcical convention, at which dissidents started a brawl but government supporters easily won the day. The party's reward is to provide Mr Serra's running mate, Rita Camata, a congresswoman from the coastal state of Espirito Santo. Though Mrs Camata rebelled against the government on some key votes (eg. on privatisations), as a lawmaker she brings an attractive mix of financial responsibility and social concern. Her “Camata law” constrains payroll costs at all levels of government, and she co-wrote Brazil's child-welfare law. And while Mr Serra is short of charisma, Mrs Camata is a photogenic young mother.

The coalition's third big party, the conservative Liberal Front (PFL), quit the government in March, accusing Mr Serra of orchestrating a corruption scandal that brought down its candidate, Roseana Sarney. But some of its leading figures, such as Cesar Maia, the mayor of Rio de Janeiro, are now climbing back on to the Serra bandwagon. The right-wing Progressive Party (PPB) has also had second thoughts about going solo. In some places local rivalries will frustrate deals struck between the parties at national level. But, reckons CSFB, an investment bank, Mr Serra will be backed by at least 60% of the PFL's local branches and 85% of the PPB's.

Allies are crucial to winning a presidential election in Brazil, partly because free television and radio time for the candidates is allocated according to party strength. Mr Serra should get about 40% of the total time, double that of Mr da Silva.

But Mr da Silva this week clinched an alliance of his own, with the small, right-wing Liberal party. Its leading figure, Jose Alencar, a textile magnate, will be his running mate, reinforcing Mr da Silva's attempts to present a moderate image.

In contrast, Anthony Garotinho, a soft-left candidate who is third in the polls, lacks allies. Another soft-left contender, Ciro Gomes, has built a rickety “Labour Front” with two small parties. But he is lagging in fourth place in the polls.

Most voters will not make up their minds until the World Cup is out of the way, and the television time starts in August. Between now and then, Mr Serra's challenge is to consolidate his second place in the polls, while hoping that the soft-left candidates do not drop out and thus hand Mr da Silva the chance of a first-round victory, according to Bolivar Lamounier, a Sao Paulo political scientist.

Brazil's currency and its bonds have plunged since April, as investors panicked at the idea that Mr da Silva might win. Mr Serra's rising fortunes, and some new economic measures, may calm the markets. The government will draw down a $10 billion IMF loan and will increase its fiscal surplus (before interest payments). The turbulence may even have helped Mr Serra draw wavering allies to his side. A lucky accident? Or was the panic whipped up for just this purpose? Mr Serra's opponents suspect the latter.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Mexico and the United States

A water debt boils over

Jun 20th 2002 | ANTIGUA CIUDAD GUERRERO, MEXICO
From The Economist print edition

A border drought has become dangerously political

THE best way to get a sense of the chronic water shortage afflicting the frontier region between the United States and Mexico is to stand in front of the church of Nuestra Señora del Refugio in the village of Antigua Ciudad Guerrero. The church's handsome colonial façade is a little battered. But what makes its survival remarkable is that until recently it was submerged beneath Falcon reservoir. When the reservoir was created in 1953, it was hoped that it would provide enough water for people and farming on both sides of this arid stretch of the border in perpetuity. But since 1992, the water level has been falling, exposing the ruins of Antigua Ciudad Guerrero. Today, Falcon reservoir is barely 10% full.

Farmers are suffering on both sides of the border. In southern Texas, one of the poorest areas of the United States, the drought brought losses of $1 billion between 1996 and 2001, according to a study by Texas A&M University. Farmers are “literally in a state of shock and face financial ruin,” says Frank “Jo Jo” White, who heads one of the 28 irrigation districts between Falcon and the Gulf of Mexico. Half of his farmers have already used up their depleted quotas of water for the year, and have had to leave their crops to rot in the fields. Across the river in Mexico, in some parts of Tamaulipas, for the second year running, there is no authorised irrigation. Millions of cattle have been lost.

Rainfall has been low for a decade and, perplexingly, few hurricanes have hit this part of the Gulf coast. But the drought is partly man-made. The border's population has been growing, especially since the entry into force in 1994 of the North American Free-Trade Agreement (NAFTA). And on the Mexican side, farmers have shifted towards more profitable—but thirstier—crops such as pecans and alfalfa.

Mexicans and Americans have long managed border water resources through peaceful co-operation. But as water supplies have deteriorated, so have relations between the two countries. In particular, the United States puts much of the blame for the plight of Texan farmers on Mexico.

American officials complain that Mexico has stopped honouring a 1944 treaty that requires water to be exchanged between the two countries along the driest parts of the border. In the west, the United States agreed to give Mexico 1.5m acre-feet (1.85 billion cubic metres) of water a year from the Colorado River. In the east, Mexico agreed to give the Americans 350,000 acre-feet a year from its six rivers flowing into the Rio Grande (Rio Bravo to Mexicans). But since 1992, Mexico has reneged on its side of the deal; it now owes desperate Texas farmers 1.5m acre-feet of water. President Vicente Fox was due to visit Texas next week. But he has cancelled the trip, presumably to spare himself the inevitable angry protests.

The United States puts much of the blame for the plight of Texan farmers on Mexico

Mexico's border states claim that, because of the drought, they lack the water to pay the debt. But American officials insist that Mexico has in fact got what they politely call “unassigned water”. They have satellite pictures as evidence. They want Mexico to hand over 500,000 acre-feet of water by September as a down-payment on the debt. Talks are going on in Washington. But so far, the two sides still seem miles apart.

Mr Fox, who values his good relations with George Bush, has pledged to repay the water debt. But the governors of the border states have other ideas. Prominent among them is the governor of Coahuila, Enrique Martinez, from the opposition Institutional Revolutionary Party, who has no interest in solving Mr Fox's problems with the United States for him. In the background lurk Mexicans' traditional “anti-gringo” feelings.

Belatedly, politicians on both sides of the border are now trying hard to find a way out of the impasse before the water dispute pollutes the always complex relationship between the two countries. But even if the immediate dispute is settled, that will hardly dent the longer-term problem. A booming border economy and rising population have boosted demand for water just when the supply has decreased. Thirsty times are likely to become the norm along the border.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Economist.com WORLD THE AMERICAS
PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

Mario Dumont

Quebec's fresh face

Jun 20th 2002 | MONTREAL
From The Economist print edition

Enter a soft-core nationalist

Get article background

SINCE the 1970s, provincial politics in Quebec has been a predictable affair. The Parti Québécois (PQ) wants the province to secede from Canada, while the Liberals do not. The two have alternated in power, each lasting a couple of terms before being booted out by voters. Debate has been largely confined to the constitutional issue, since both parties are mildly social-democratic on economic questions.

Now a third force, Action Démocratique du Québec (ADQ), is reshaping the province's political mould. Formed in 1994, the ADQ held just one seat in the 125-seat provincial legislature until this year, that of its leader and founder, Mario Dumont. But in by-elections in the past two months, it has picked up four more seats, three of them on June 17th in previously safe PQ constituencies. A provincial election must by held by autumn 2003. Mr Dumont, at only 32 years old, has become the man to beat.

By-elections are a painless way for voters to protest, and no guide to the real thing, scoff officials from the two main parties. They point out that the same recent opinion poll which showed that Mr Dumont was the favourite choice for provincial premier also showed that four out of five respondents could not identify a single ADQ policy. In fact, the party espouses a flat income tax, more private involvement in health care and vouchers for schools and day care. These won't sell in Quebec, say the PQ and the Liberals. Or will they? Mr Dumont points out that the more he was attacked by the established parties, the higher the ADQ rose. Perhaps Quebeckers, the most heavily taxed of North Americans, are developing a taste for American-style neo-conservatism.

At first glance, the biggest loser from Mr Dumont's rise is Bernard Landry, the province's PQ premier. He has held his job for little more than a year, and has presided over a thriving economy. Some 125,000 new jobs have been created in the past six months in the province. But he has been hit by a lobbying scandal and a bungled cabinet shuffle, which saw two of his most popular, long-serving ministers quit. Anyway, Mr Landry's chances of being more than a caretaker premier overseeing the dying days of a PQ administration were always slim. It was widely assumed that at the next election he would be replaced as premier by the province's Liberal leader, Jean Charest.

But the by-elections underlined Mr Charest's biggest problem: winning votes outside metropolitan and multicultural Montreal. In *les régions*, the rural francophone constituencies that decide provincial elections, the Liberals are now the choice of only one voter in five. Under Mr Charest, they have become more openly federalist than at any time since the 1960s. As a result, they are now seen as “the party of the English”.

That has given Mr Dumont his opportunity. Like the PQ in the 1960s, the ADQ was founded by disaffected Liberals, unhappy with the party's constitutional line. Mr Dumont is himself a former leader of the Young Liberals. His new party reflects the ambivalent nationalism of many Quebeckers, best summed up by a comic who said that the ideal solution is an independent Quebec within a strong and united Canada. Mr Dumont wants the province to have more powers, but would not use divisive referendums to get them.

Can the precocious Mr Dumont and his soft-core nationalism take power next year? The ADQ lacks the province-wide networks, and the money, of the established parties. And Quebeckers may indeed balk at some of its policies. But already he has rearranged the sterile political pattern of the past 30 years.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

Indonesia

The challenge for moderate Islam

Jun 20th 2002 | JAKARTA
From The Economist print edition

EPA

Almost all Indonesians are tolerant, moderate Muslims. Yet the government seems strangely reluctant to confront the few dangerous radicals

Get article background

THERE is little sign of the tolerant, pluralist face of Indonesian Islam outside the Eksotis night-club in Jakarta. Broken glass, burnt wood and shredded tarpaulin litter the car park—the result of a bombing last weekend by suspected Muslim militants. No one claimed responsibility for that attack, or for two bombs placed outside other night spots that were found and defused. But Islamic vigilantes openly ransack bars and brothels around the country from time to time.

One militant group, Laskar Jihad, sends recruits to fight for the Muslim side whenever religious conflict breaks out in Indonesia's far-flung provinces. It also enlisted volunteers last year to fight for the Taliban, though it failed to get them to Afghanistan in time. Malaysia and Singapore have accused Indonesia of allowing the leader of a terrorist group with links to al-Qaeda to roam free. Even if, as the government maintains, there is no evidence that Abu Bakar Basyir, the man in question, committed any crime, he certainly advocates violence in the name of religion.

Yet Indonesians insist that their version of Islam is much more peaceful and liberal than that of the Middle East, let alone of al-Qaeda's zealots. For the most part, they are right. About 90% of Indonesians—some 200m people—are Muslims, yet violent extremists number only a few thousand. At the most recent elections, in 1999, the majority of votes went to secular parties.

The religious parties that did best advocated consideration for minorities; one that called for the introduction of Islamic law polled a miserable 1.7%. Two huge Muslim organisations, Nahdlatul Ulama and Muhammadiyah, which together claim more than 60m members, earlier this year agreed to join forces to fight religious extremism. A politician from Aceh, reputedly the most devout province, recounts that locals booed Jaafar Umar Thalib, the leader of Laskar Jihad, during a recent speech in the provincial capital.

Yet, given how little support extremists enjoy, the government seems strangely reluctant to take them to task. Laskar Jihad (along with separatist Christian groups) had spent three years fanning sectarian fighting in the Moluccas before the government arrested Mr Thalib in May for incitement. One of his first visitors in prison was Hamzah Haz, the vice-president and head of Indonesia's biggest Islamic party. A few weeks later, Mr Haz also dropped in on Mr Basyir. Though most politicians do not go so far, many are

unwilling to condemn Islamic extremism loudly and openly.

This reticence stems in part from the unrelated causes with which extremists have dressed up their brand of Islam. It has become a point of national pride, for example, not to give in to foreigners' haughty demands for Mr Basyir's arrest. America's foreign policy is unpopular, and any gesture that smacks of defiance of it correspondingly popular. Many Muslim Indonesians sympathise with the plight of their brethren in the Moluccas, and associate Laskar Jihad with their cause. They are also fed up with the country's abject lawlessness and corruption, and support any moves to restore some sort of order. Several of the radicals first rose to prominence by resisting the authoritarian regime of Suharto, a former president, and still retain a certain dissident glamour.

Fear of being labelled bad Muslims also plays a part in the government's timidity. According to Ulil Abshar Abdalla, head of the Islamic Liberals Network, “all the politicians in the country think that Islam is a monster—but if you go against it you risk your career.”

Megawati Sukarnoputri, the country's president, seems particularly sensitive about her Islamic credentials. She has been denounced for visiting Hindu temples, for consorting with Christian America, and for being a female leader in a Muslim society (by her own vice-president, Mr Haz, among others). The arrest of Mr Thalib shows that she is growing more confident, but the lack of any significant protests about her action also suggests that she had nothing to worry about anyway.

Above all, Indonesia's politicians are not very good at standing up to anyone, from Muslim extremists to debt defaulters. The memory of Suharto's repression remains so strong that public figures hesitate to marginalise anyone, for fear of appearing anti-democratic. In any case, many Indonesians find direct confrontation distasteful. The president recently chided Indonesia's parliament for taking decisions by voting, instead of through consensus. Pluralism, surely, to a fault.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

Japan

Handcuffs and gridlock

Jun 20th 2002 | TOKYO
From The Economist print edition

A political arrest rocks Junichiro Koizumi

AP

Suzuki and followers

WHEN Muneo Suzuki, a politician who until recently was a prominent member of Japan's ruling Liberal Democratic Party (LDP), was arrested on June 19th, the only surprise was that it had not come sooner. Mr Suzuki, who was charged with accepting ¥5m ($40,000) in bribes from a lumber company in his constituency of Hokkaido, a northern island, four years ago, had for months swum against a stream of allegations of bid-rigging and meddling in foreign-ministry affairs.

Though his arrest is for allegedly trying to influence the Forestry Agency in return for money, most of the accusations against Mr Suzuki involve the scandal-ridden foreign ministry, over which he held great sway. His troubles began in January, after a bitter battle with Makiko Tanaka, the then foreign minister, who accused Mr Suzuki of tampering with her decisions. Ms Tanaka was this week suspended from the LDP, in an unrelated scandal. The foreign ministry had to conduct an internal investigation, which concluded that its relationship with Mr Suzuki had been “abnormal”. Mr Suzuki “resigned” from the LDP in March. In April, his political secretary was arrested for allegedly rigging bids for public contracts. Last month, two foreign-ministry officials close to Mr Suzuki were charged with misappropriating public funds: they are also thought to have passed on state secrets to Mr Suzuki.

This is a painful time for the politicians and bureaucrats who deal with Japan's foreign and defence policies. The foreign ministry, in particular, has been dragged through the mud. Many dismiss as feeble its efforts to clean up after a corruption scandal last year. Nor has it escaped notice that much of Mr Suzuki's alleged wrongdoing required its co-operation.

Then, late last month, it emerged that the Defence Agency had secretly compiled personal reports on individuals seeking information from the agency. The reports, which included remarks about their attitudes towards the armed forces, was reminiscent of the work of Japan's pre-1945 special police, who persecuted people opposed to the ideas of the military regime of the time. The agency was next accused of covering up the results of an internal investigation into the affair. When a harassed Yasuo Fukuda, the chief cabinet secretary, then reportedly let slip that Japan might rescind its non-nuclear policy, it caused yet another uproar.

Such blunders have paralysed policymaking. Furious opposition parties have boycotted debates, leading the Diet, on June 19th, to extended its session by another 42 days. But the remaining session is likely to be no less turbulent, with opposition parties split over whether to extend their boycott or grill LDP politicians said to have received money from Mr Suzuki.

Of the four big bills that have been held up, a controversial one on emergency defence legislation is now unlikely to pass, as is another on the protection of personal information (mostly from the media, rather than government agencies). A bill aimed at breaking Japan's powerful post office's monopoly on postal services is expected to go through, but it has by now been so watered down that it has become practically meaningless.

His inability to get bills through the Diet has badly hurt Junichiro Koizumi, the prime minister. Mr Koizumi, who has also been widely criticised for his indifferent response to the scandals, is getting

weaker by the day, prompting speculation that he may soon have to give in to members of the old guard within his party and reshuffle the cabinet to give them more power, with dangerous implications for his so far largely unfulfilled promises of reform.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

South Korea

Winners, losers

Jun 20th 2002 | SEOUL
From The Economist print edition

Soccer team scores, politicians stumble

IT WAS indeed awesome. A seemingly impossible dream came true when South Korea defeated favoured Italy on June 18th in the World Cup and thereby roared on to the quarter-finals. Millions of people took to the streets to celebrate. Even President Kim Dae Jung, who has little to be happy about these days, gave a cheer in the Blue House, where he watched with his ministers.

His jubilant mood did not last long. Next day, one of his three sons was questioned by prosecutors about allegations that he took bribes from businessmen. Another son is due to go on trial next week accused of tax evasion and influence-peddling. On top of all this, the president is being blamed for the defeat suffered by the ruling Millennium Democratic Party (MDP) in last week's local elections. Mr Kim resigned in May from the MDP, which he founded, hoping to separate the party from the scandals involving his sons. Yet in the elections many voters seemed still to identify the party with the president, and either withdrew their support for the MDP or abstained.

Turnout was only 48.9%, a record low. Of the 16 elections for senior posts (seven for mayors in the big cities, nine for provincial governors), the MDP won only four, three of them in the Cholla region, its political base in the south-west, the other in Jeju island. The main opposition group, the Grand National Party, won 11 posts, including the mayors of Seoul and the southern port city of Busan (formerly Pusan).

It is hard to work out what pointers the results give to the presidential election due in December. They seem to confirm that the opposition candidate, Lee Hoi Chang, a former Supreme Court judge, is well placed. Opinion polls put him at least ten percentage points ahead of Roh Moo Hyun, the MDP's nominee. Mr Lee has moved up sharply since mid-April, when Mr Roh was well ahead in the race for the Blue House.

The MDP is embroiled in internal squabbles, which cannot help its chances. Before the local elections Mr Roh said he would seek renomination if the party failed to win in his home constituency in Busan. The party's leaders say they will wait for the results of 10 parliamentary by-elections on August 8th before confirming his candidacy. But some members of the party want both the party leadership and Mr Roh to resign before then, and the party to pick a new candidate with a better chance of winning the presidency.

But who might that be? There is no obvious challenger to the opposition's Mr Lee, although many Koreans consider him pretty second-rate. At the moment, only one person in the country is universally popular. Guus Hiddink, South Korea's (Dutch) football coach, of course.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Economist.com WORLD ASIA
PRINTABLE PAGE VIEW SPONSORED BY
About sponsorship

Afghanistan's government

Small change

Jun 20th 2002 | KABUL
From The Economist print edition

Tajiks still dominate

AFGHANISTAN'S grand council, or *loya jirga*, drew to a close this week after nine days of intense political wrangling and speeches filled with all the pain and anger of two decades of war. In so far as it was an exercise in national unity, with more than 1,500 delegates from across the country and from refugee communities abroad, it represented a symbolic success. The Afghans overwhelmingly elected Hamid Karzai, an ethnic Pushtun, as president for the next 18 months. They also approved his new government, just minutes before he was inaugurated.

The *loya jirga*, however, also revealed the country's deep divisions. There were two days of fierce arguments and lobbying over how to form a national assembly, and whether it should serve as an advisory council or a legislative body. Mr Karzai asked delegates to resolve this, but regional and tribal rivalries erupted and they failed to do so.

The meeting also highlighted the enormous power of the faction leaders from the mainly Tajik former Northern Alliance, who orchestrated both Mr Karzai's election and the selection of his government from behind the scenes. Many delegates saw their influence in the sidelining of the popular former king. There were also complaints about intimidation.

Besides, Mr Karzai's new cabinet looks more like a shuffling of his old one than the transformation many delegates wanted. “Most delegates think if there is no change in the cabinet there will be war again in Afghanistan,” said Haji Fazel Ahmad from Ghazni. The only real change was to give the interior ministry, so far held by Yunus Qanooni, a Tajik, to a Pushtun. Mr Qanooni remains in the government.

The powerful defence minister, Mohammed Qasim Fahim, kept his job, as did Abdullah Abdullah, the foreign minister, both Tajiks. The new interior minister, Taj Mohammed Wardak, the governor of Paktia, is an experienced former governor, though some questioned whether he will be tough enough.

Mr Karzai's aides and members of the current government even tried to bypass the *loya jirga*, saying that it was the president's prerogative to choose his own cabinet. But as the meeting dragged on beyond its scheduled seven days without any proposal on the structure and composition of the government, the delegates' mood began to darken. The American special envoy to Afghanistan, Zalmay Khalilzad, had to remind Mr Karzai that, under the Bonn accords, the *loya jirga* was to approve key personnel and the structure of government. “As the international community, we were involved in it and we will insist on it,” Mr Khalilzad said. “People are worried that they came here for nothing. That is not right.”

The disappointment of the delegates, who had arrived with such hopes at the *loya jirga* a week ago, was evident. “I waited for this day for 24 years and now I could kick myself for having waited for it,” said Fatima Gailani, a long-time spokeswoman from the west. “We gave him all of our power,” she said of Mr Karzai. “But maybe we are not powerful, maybe we are extremely weak.” Delegates left sobered, in the realisation that it will take a lot more than a *jirga* to solve all their problems.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Economist.com WORLD ASIA
PRINTABLE PAGE VIEW SPONSORED BY
About sponsorship

China

Men without women

Jun 20th 2002 | BEIJING
From The Economist print edition

The consequence of family planning

IT HAS been more than 20 years since China implemented its harsh yet effective family-planning policy. By limiting urban couples to a single child and most rural couples to two, China has managed to slow the growth of the world's largest population. Now, however, the government must figure out what to do about the policy's unintended consequence: a huge and potentially destabilising sex imbalance. Statistics just released based on the 2000 census disclose that, in the country as a whole, about 117 boys are born for every 100 girls. The imbalance is extraordinary in some areas, exceeding 135 for 100 in southern Hainan province.

The reasons are easy to fathom. When couples were free to have half a dozen children, there was a natural mix of boys and girls. When limited to one or two, they worked the system to produce sons. At the benign extreme, a girl's birth might simply not be registered, in the hope that next time the couple would produce a male. More worrying is widespread sex-selective abortion. Cheap but effective ultrasound equipment is now available throughout China and, though the practice is illegal, it is routinely used for pre-natal sex determination. The abortion that apparently often follows is devoid of taboo in China and extremely easy to arrange.

All this leads to worries about how society can function without enough women. The prospect of a large surplus of single men in China alarms Valerie Hudson, a professor at Brigham Young University in the United States. In a study to be published in the next issue of Harvard University's journal *International Security*, she notes that societies with large numbers of unmarried males tend to experience more crime, unrest and violence. While acknowledging that sex imbalance is only one of many factors influencing levels of violence, Miss Hudson points out that the 30m unhappy unmarried men China is likely to have by 2020 could become “kindling for forces of political revolution at home”. There could also be an impact outside China, she says. The government may decide to use the surplus men as a weapon for military adventurism and “actively desire to see them give their lives in pursuit of a national interest”. A terrifying thought indeed.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Economist.com WORLD ASIA
PRINTABLE PAGE VIEW SPONSORED BY
About sponsorship

Tuberculosis in India

Joining the dots

Jun 20th 2002 | ALLAHABAD, BHILWARA, JOYPUR AND DELHI
From The Economist print edition

India's new programme for controlling TB is working, but not yet fast enough for the millions affected

LALA is a young man but not a healthy one. Weight loss has pinched his face, giving it the shape of India; his silences end in coughs. Lala stopped taking medicine for tuberculosis (TB) because he started feeling better and ran out of money at roughly the same time. Now the disease is back and he can no longer afford treatment. He may be among the half-million Indians who will die this year from TB, which kills five times as many as malaria, striking mainly those in their prime.

These are avoidable tragedies. Tuberculosis is almost always curable, and the cure is not expensive. When death happens on an Indian scale it is because the health system is not working. Few Indians, knowing as they do that their state is riddled with cracks just the right size for people like Lala to fall through, are surprised when it does.

This is one failure that the Indian state has recently roused itself to correct. Since 1998 India has introduced on a large scale the internationally approved method for tackling TB. The revised national tuberculosis control programme (RNTCP) now covers 460m of India's billion people, and is expected to reach 800m by 2004. But continued success is not assured. The programme demands much from a public-health service that takes in a scant 1% of GDP and misspends much of that. TB control “is basically a management problem,” says Thomas Frieden, who helped India expand the programme and is now New York City's health commissioner.

Few places are harder to manage than India. The premise of TB control is that treatment cannot be left to patients and their doctors. Because there are lots of pills and people feel well before they are cured, they quit prematurely. TB sufferers can infect another 10-15 people in a year; in New York, officials can lock them up if they fail to take their medicine. The accepted remedy is DOTS (Directly Observed Treatment, Short Course), the invention of a Czech concentration-camp survivor. Its essence is the meticulous recording of each event in a patient's treatment, from diagnosis (usually by sputum test, not X-ray) to the administration of many pills and eventually to confirmation of cure. All this should cost the patient nothing.

If the system worked perfectly, TB would die out. In practice, the World Health Organisation sets two main targets: 70% of newly infectious cases should be detected, and 85% of those cured. That would halve the rate of infection in 8-14 years. Most districts in India are close to the cure target but fall short on detection. Since India has 30% of the world's cases, and TB travels, the rich world has a stake in India's success.

But how much can one expect from sprawling, chaotic India, where patients often live miles from roads and the public health system, notorious for absentee doctors and missing drugs, is a last resort, even for the poor? At least 80% of qualified doctors are in the private sector; their numbers are exceeded by 1.25m unqualified practitioners. None has much stake in DOTS, which takes away their customers.

Surprisingly, DOTS is surfing India's anarchy without falling over. Although few DOTS districts have hit both of the WHO's targets, they handily outperform non-DOTS ones, where treatment is at a doctor's whim and there is no mechanism for retrieving patients who quit. The mortality rate for infectious patients is less than 5% where DOTS has been introduced; elsewhere it is 29%. The RNTCP effort claims to have saved 210,000 lives so far.

This result is the progeny of an odd coupling: of the Victorian-vintage optimism underlying DOTS and the

improvisational spirit that Indian conditions demand. The programme is, in a way, building a railway, with a station in every village for delivering treatment and picking up data.

The first link is between patient and observer, who can be anyone but a family member. Most often, observers are junior employees of the health service, such as *anganwadi* (child-health) workers. A second copy of each patient's record sits with a treatment supervisor, who has a motorcycle to track down defaulters. There should be no risk of missing drugs: each patient has a box containing all the drugs required for his cure, an Indian innovation. Word of success or failure comes back through quarterly reports on each district, which the world can scrutinise, if it cares, on the RNTCP website.

The system is not foolproof, though it is designed to be nearly so. Performance in a state or district depends largely on the zeal of the bureaucrat in charge. Rajasthan's health secretary dealt with recalcitrant professors at a medical college by threatening to suspend their licences. The state took a year to roll out DOTS to 44m people, close to a world speed record.

Now that it is no longer an experiment, RNTCP is facing the pressures of maturity. The goal of further expansion may start to compete with other priorities. The programme's main financier, the World Bank, has insisted that it devolve more responsibility to states, which may be necessary but could also weaken quality-control. The next big question will be how to deal with the private sector.

“RNTCP can control only half the problem, not the full problem, until it reaches the private sector,” argues M. M. Singh, head of India's Tuberculosis Association. Others think that people will use the public system once word spreads that it offers good, free care. Converting private doctors to DOTS, they say, is less important than getting the scheme to the half a billion people who still have no access to it.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Israel and the Palestinians

The passions aroused by terrorism, and by an anti-terrorism fence

Jun 20th 2002 | JERUSALEM
From The Economist print edition

AP

Many Israelis, traumatised by terrorist attacks, yearn to separate themselves from the Palestinians. But the right wing sees separation as betrayal

Get article background

TWO days after Israel began building a fence to separate itself from the West Bank, a suicide bomber struck in Jerusalem, killing 19 people, including six schoolchildren, on a rush-hour bus. The next day, Jerusalem was hit again, a suicide bomber killing six people at a commuter bus stop near French Hill, a well-established urban settlement. On June 18th and 19th, the Israeli army invaded several West Bank towns and cities, and bombed Gazan ones. The prime minister, Ariel Sharon, announced a new policy: the army would occupy selected Palestinian areas and stay in them so long as the terror continues. Military sources said top Palestinian officials would be deported, though not Yasser Arafat himself.

The first of the back-to-back bombings was a tragedy foretold. All night, police helicopters had whirred over the city, foot patrols combed its southern suburbs, and every hour the radio urged the public to be watchful. There had been intelligence information that a suicide bomber was on the prowl, intent on attacking before George Bush could deliver his (later postponed) policy statement on the conflict. In the event, the bomber apparently boarded the bus at Beit Safafa, a Palestinian district outflanked by the sprawling Jewish settlement of Gilo, from where the bus set out.

The attacks sparked ever angrier debate both over the planned pace of the fence-building—it is due to take a year before it reaches Jerusalem—and over its projected direction once it gets there. The mayor, Ehud Olmert, wants it to follow the wide municipal boundaries of the city as delineated by Israel unilaterally, in the immediate aftermath of the 1967 war. The suicide bombers, he argues, have all come from outside. His critics, arguing that the fence might well foment violent resistance within the city, propose various convoluted schemes for physically separating Jewish and Arab districts, all of which Mr Olmert rejects on ideological grounds. Others urge that the fence around Jerusalem encompass substantial areas of the West Bank to the north and south of the city, where large blocks of Jewish settlements have been built over the years.

These still-hypothetical disputes about Jerusalem are being peremptorily resolved in the north. The proposed fence, which has begun to go up, partly hugs the pre-1967 border, but will make considerable incursions eastwards to take in settlements that are relatively close to the line. However, to the dismay of the right, the bulk of northern settlements will remain outside the fence.

Vociferous groups, both on the left and the right, are still fighting a rearguard action. Peaceniks argue that unilateral action by Israel destroys whatever prospects remain of reaching a negotiated peace with the Palestinian leadership. They balk, too, at the land grabs. “A fence that deviates from the 1967 line and does not require the dismantling of settlements will reduce rather than enhance security,” said Yossi Sarid, leader of the Meretz opposition.

Among the settlers and their political hinterland, the fear is that the fence will, as they put it, “discriminate between blood and blood”. They believe that the settlements and their need for military protection will drop in the army's order of priorities, especially if the fence proves effective in reducing the incidence of suicide bombing inside Israel.

More profoundly, they fear that the fence, by its massive presence and permanence, will inexorably dig itself into the national consciousness as the new-old border between Israel and Palestine—the border that they have laboured for decades to erase from the public mind. “Judea and Samaria are here,” the Settlements Council tried to persuade Tel Avivians in a vigorous poster campaign some years ago. It aroused scant sympathy then. But the suicide bombings, which have made the streets of Tel Aviv and other cities as dangerous as far-flung settlements, have given new cogency to the settlers' argument.

At the same time, the bombings have aroused an Israeli yearning for “separation” between the two nations. The government has been swept along by this pressure from below. Mr Sharon, whose heart is with the settlers, discerned, probably rightly, that if he continued to oppose the fence he would be brought down. The Labour leaders would have preferred to hold out for new negotiations with the Palestinians. But the popular response to the unilateralist thesis enunciated by such senior figures as Haim Ramon and Shlomo Ben-Ami was too strong for Binyamin Ben-Eliezer, the party's chairman, to withstand.

Mr Ben-Eliezer, who is also the defence minister, still insists with determined disingenuousness that the fence is “non-political”. It is not a border, he says, “it is a wall. Just a security buffer, whose sole purpose is to block the way in for bombers and terrorists.” Senior army officers explain that the physical structure itself will be reinforced by an elaborate system of electronic surveillance and manned patrols that can quickly identify and contain any attempts to break through or climb over. Military opponents of the costly ($1m per kilometre or $1.6m per mile) fence say that no barrier is impenetrable. Determined men, they say, will try to dig under it, or hang-glide over it, or lob home-made mortar bombs at targets on the other side.

According to cabinet insiders, it was the director of the Shin Bet security service, Avi Dichter, who persuaded Mr Sharon and Mr Ben-Eliezer to give their go-ahead for the fence. The alternative, he advised them, was to keep large military forces deployed inside the Palestinian areas indefinitely. But now, after the latest bombings, it seems that this will be done, too.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

The fenced-in West Bank

Suffering for the crimes of the few

Jun 20th 2002 | BARTAA
From The Economist print edition

From a Palestinian point of view, the fence is yet more whittling away of land

Get article background

THE 2m Palestinians in the West Bank were this week facing either military containment or military reconquest or both. After lethal suicide bombings, in both west and east Jerusalem, on June 18th and 19th, Israeli tanks went into Ramallah, Bethlehem, Jenin, Nablus, Qalqiliya and Hebron, and missiles were pitched into Gaza city and Khan Yunis, all areas under Palestinian Authority (PA) control. This, in the past few weeks, has been Israel's retaliation to violence. But this time it could be different.

AP

A steep path, but at least no checkpoints

New directions from the prime minister's office announced that henceforth “Israel will respond to acts of terror by capturing PA territory. This area will be held by Israel as long as terrorism continues.” Since the terrorism does continue, the Palestinians have to suppose that the troops will stay either to impose a military regime of pre-Oslo vintage—or until a new security fence is built around the territory.

This new fence—a system of barriers, roads, sensors and patrols—will eventually run the length of the 360km (225-mile) border between Israel and the West Bank. It will deviate slightly from the line to include certain Jewish settlements within Israel, and to exclude densely peopled Palestinian areas.“This is a fascist, apartheid measure. We will reject it by all means,” said Yasser Arafat on June 17th.

Palestinians believe the fence is a ruse to annex slabs of occupied territory which should properly be returned or at least negotiated. According to Palestinian geographers, the initial construction of the fence in the north has already entailed the confiscation of some 78 square kilometres (30 square miles) of good land, mainly from villages that straddle the pre-1967 border between Jenin and Tulkarm.

Bartaa is one such village. Its residents are all Arab but 2,000 of them hold Israeli citizenship, while 3,500 have West Bank identity cards. The old border runs along a ditch through the centre of the village. The army has told them the new border will be 3km inside the West Bank. This will mean separating many families from their relatives and lands in the West Bank.

Although Israel's settler movement is opposed to the fence, the Palestinians see it as yet another

measure to integrate West Bank settlements with Israel proper, strengthening their colonial grip on the territory. According to a recent report by the Israeli human-rights group, B'tselem, 135 settlements (housing about 380,000 settlers) now control 43% of all West Bank land, much of it in vast blocks that abut the old border. Surrounding and “buffering” them, Israel has illegally declared another 20% to be “state land”, also barred to Palestinians. In addition, the Israeli army has overriding military control over the 400 or so Palestinian villages that lie, scattered and isolated, between the settlements, covering another 20% of the West Bank.

This leaves the PA in nominal control of about 20% of the West Bank, in fact its eight main Palestinian towns. The control is nominal because these too are isolated one from the other, with all Palestinian movements at the whim of one or other of the 120 army checkpoints that now police the West Bank. “Israel's current separation and closure policies are a direct result of the dispersal of the settlements,” says a B'tselem researcher, Yehezkel Lein.

Like everyone else, West Bank Palestinians have been waiting for George Bush to announce his new plan for resolving their conflict with Israel, perhaps by way of some kind of Palestinian state. But what they now witness, through Israel's separation, closure and settlement policies, is not the seeds of a future state but a geographical transformation in which, says Rema Hammami, a Palestinian analyst, “Palestinian communities have become settlements in an Israeli West Bank”.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Iran's economy

Stoic before the storm

Jun 20th 2002 | TEHRAN
From The Economist print edition

Buying a way out of disaster, for a bit

Reuters

SOME 1m Iranians enter the labour market each year, but there are jobs for less than half of them. Unemployment is unofficially estimated at 18%, and rising. Over the past three years and a bit, 285,000 qualified Iranians have emigrated. The country, according to a senior ayatollah, is on the verge of exploding. When will that be? Whenever there is a dramatic fall in oil prices, prophesy some.

We can buy time, so long as we have the oil revenues, says Saeed Leylaz, a liberal economist. The revenues are still there, just about. Though they are declining, and may bring down foreign-currency earnings by as much as $5 billion this fiscal year, Iran, like other big producers, is still reaping the benefits of the 1999 price leap.

But time is steadily getting dearer. The fear of unemployment dragging Iran towards crisis helps explain why Muhammad Khatami's reform-minded government has not kept its promise to dismantle the country's socialist-style economy. It is, for instance, starting to dole out $1.1 billion in the form of soft loans to employers who hire extra workers. Mr Leylaz is not alone in expecting the scheme to be inflationary, to encourage fraud, and to create far fewer than the 300,000 permanent jobs its champions seek. It is the perfect way to bail out indebted companies, Mr Leylaz concludes wryly.

There is some good news. Since the president's re-election last summer, the government has cut corporate tax and income tax for the poor, and removed many import barriers. The reformist parliament has managed to outlaw a system that allocated foreign exchange to privileged companies at less than a quarter of its market rate. It has thus, at a stroke, abolished a hidden subsidy that was said to be worth $4 billion a year.

Last month, the Expediency Council, a high-powered mediating body, ratified a controversial law that is designed to enhance Iran's, admittedly meagre, attractiveness to foreign investors. The new law allows foreigners a 25% participation in many sectors, recourse to international arbitration, and the chance to repatriate, in hard currency, earnings that have been made in the domestic market.

But the budget this spring was an epicurean response to approaching hooves. Spending has gone up by 54%. Civil servants are celebrating record wage rises. Taking into account the income-tax cut, some government employees are taking home 30% more than they did last year (which comes out at about 17% , once you have discounted inflation of 11.5%). Nobody expects the projected revenues—which have been predicated on a 50% increase in tax receipts, and a revival of Iran's privatisation programme—to materialise.

The inevitable deficit will be met by dipping into an oil-surplus fund, which was designed partly to guard against future slumps in oil prices, and partly as a loan fund for exporters. The deficit's size, furthermore, will flatter the government; it will not reflect non-performing loans from state banks to state enterprises. The government dismisses the rise in spending as largely illusory: the old, hidden subsidy of cheap foreign currency has taken the form of transparent subsidies, which can later be reduced. Nonetheless, most economists regard the budget as inflationary.

No wonder Mr Khatami is uneasy. Mass privatisation would increase unemployment by a destabilising margin; well-run public enterprises are few and far between. In addition, he has been forced to increase the budgets for parastatal foundations, and such behemoths as the state broadcasting monopoly, which answer not to the government, but to the conservative-minded supreme leader, who generally sides with the president's opponents. Powerful conservatives are unlikely to allow their organisations to be scrutinised, let alone privatised: it is on these that much of their political power rests.

Enmity with America, which has imposed stringent sanctions on Iran, is not helping. Unless the United States lifts its veto on Iran's membership of the World Trade Organisation, it is hard to imagine Iranian exporters getting advantageous access to world markets. Pressure from the American government recently led Moodys, a credit-rating agency, to withdraw its rating for Iran. A forthcoming Eurobond issue may strike a note of defiance, but cannot hide an uncomfortable reality. European investors have not, as yet, managed to plug the gaps that, in other countries, are filled by American companies.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

The EU and Iran

The hand of friendship?

Jun 20th 2002
From The Economist print edition

Ignoring America, Europe ploughs its own Iranian furrow. Slowly

IN THE absence of any progress towards easing America's painful embargo, Iran was this week celebrating what it called a “landmark decision” by the European Union to open talks on a trade and co-operation agreement. The foreign ministry cheered Europe for ignoring American and Israeli “pressures and lobbying”. But even in Europe, fans of engagement with Iran are wearying of the wait for results.

It is true that American and European policymakers disagree. “If you don't talk to the reasonable people,” said Chris Patten, the EU's commissioner for external relations, “you fetch up with fewer reasonable people to talk to.” European carrots, it is argued, rather than American sticks will help Iran's “reasonable” reformers to gain the upper hand in their apparently endless power struggle with the religious conservatives.

This week's decision will not be formally adopted until July, so talks with Iran will not start before the autumn. But it does mark the resolution of a complex wrangle over the terms of the mandate for the EU's executive arm, the European Commission, to talk to Iran.

At issue was how to link progress on trade with political issues. A trade agreement could be ratified by the European Parliament. A broader treaty would require ratification by all 15 Union members. That would take so long it might defeat the whole object, to reward Iran for good behaviour. The compromise avoids national ratification, but still links any trade deal to progress on separate agreements. These are supposed to lead to an “intensified political dialogue” between the EU and Iran, covering human rights, weapons proliferation, counter-terrorism and the Middle East, where the EU foreign ministers urged Iran to give unequivocal recognition to the existence of Israel as well as Palestine.

Initial American reaction to the initiative has been muted. Reassured by the linkages, some Americans expect the eventual talks to go nowhere slowly. Despite noting some improvement in Iran's behaviour—in particular in Afghanistan—the State Department last month still accused it of being “the most active state sponsor of terrorism in 2001”.

The European countries that have pushed hardest for engaging Iran, such as France and Spain, are themselves frustrated. They have little to show for their efforts in terms of Iranian reform. And, though the EU is Iran's biggest trading partner, the bonanza some expected at the expense of their sanctions-bound American competitors has not materialised (not, of course, that such grubby considerations would be allowed to sully the public debate).

Britain has a small grudge of its own. Best-placed of all Union members to argue the reformers' corner in Washington, it found itself instead snubbed in January, when Iran blocked the appointment of Britain's new ambassador, who was slurred by hardliners. Extend what Mr Patten called the “hand of friendship” to Iran's reformers, and a conservative is always lurking, ready to bite it.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

African development

Great expectations

Jun 20th 2002 | DURBAN
From The Economist print edition

A peer-review mechanism needs teeth if Africa's recovery plan is to succeed

“JOBS, houses and good schools,” said a woman in Soweto, a poor township near Johannesburg, when asked what an African recovery plan should be about. At bottom, this is the aim of the New Partnership for Africa's Development (Nepad), a wonderfully ambitious plan devised by African leaders to end the isolation of their continent. But can it really bring people some of what they want?

The plan, which will be officially launched at the G8 meeting in Canada on June 26th-27th, hopes to fetch Africa an additional $64 billion or so each year. It intends to do so partly by encouraging exports, partly by assuaging the doubts that foreign investors, donors and wealthy Africans have about the continent's stability.

Earlier this month, South Africa's Thabo Mbeki and several other African presidents met in Durban to set out how Nepad would reach its goals. They decided on two basic approaches: specific economic projects, such as new farming techniques and building a huge hydro-electric dam at Inga on the Congo river; and longer-term political changes that would attempt to entrench the rule of law, good government and business codes among participating countries.

The big projects may prove controversial. Similar grand plans have gone awry. Corruption, money running out, poor maintenance and wars have put paid to many schemes, including an earlier attempt to build a dam at Inga. But some proposals could catch the eyes of investors and donors. For instance: a regional electric-grid system to make energy cheaper across southern Africa; factories in South Africa making generic versions of anti-AIDS drugs; and the expansion of an existing “dot force” of specialists teaching computer skills.

But without an improvement in general performance, few projects have much chance of success. Nepad cannot work, says Nigeria's president, Olusegun Obasanjo, unless Africans end their wars. Peace in Angola and Sierra Leone, and peace talks in Congo, suggest some progress in that direction. But African rulers do not need wars to pursue policies that fail to promote their peoples' interests. So Nepad proposes a mechanism of peer review, whereby governments will voluntarily submit to criticism by fellow Africans according to commonly agreed standards.

Details of the peer-review system remain sketchy. Mr Mbeki favours a small panel of eminent Africans, perhaps former judges, retired politicians or academics, who would report on the political and economic policies of Nepad signatories. Since most African countries say they are keen to be part of Nepad, the reviews could expose some striking examples of misrule. Alec Erwin, South Africa's trade minister, says the first studies could be complete by the end of this year. But what happens then?

Mr Mbeki himself is unsure how strong Nepad's teeth should be. He talks vaguely about market reaction to the reviews, and a system of credit ratings for participating countries. Other African leaders sound uneasy, even with so soft an approach. Zambia's Levy Mwanawasa, who was elected in dubious circumstances earlier this year, argues that “peer review must not be about isolation”. And Mozambique's Joaquim Chissano says it is too early to talk of peer pressure, even on countries as badly governed as Zimbabwe.

Probably, carrots will be used, rather than sticks. African leaders are happier with the idea that countries ranked as good performers should be rewarded with aid, trade and investment. Some of that will come from outside Africa—America's Growth and Opportunity Act has already helped exports from participating African countries by lowering tariffs on many imports—but some also from within. This in turn, say the

Nepad planners hopefully, will encourage poorly-reviewed countries to perform better.

Businessmen accept that reviews could be useful. Jonathan Oppenheimer of De Beers, the diamond company, would like donors to pay academic institutions to review legislation in South Africa and elsewhere, to assess how friendly the laws are to foreign investors. Executives attending the Nepad summit in Durban said they wanted to see African governments establish common business codes, anti-corruption laws and tariffs, rather than just talking about it. Peer review could, perhaps, encourage this to happen.

Even so, outsiders, and many Africans themselves, would prefer to see greater use of the stick: sharp public criticism of misbehaving leaders by their fellow Nepad signatories. That is improbable, at least so long as Mr Mbeki and the other Nepad leaders set their sights at all of Africa signing up to their plan.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Economist.com WORLD EUROPE
PRINTABLE PAGE VIEW SPONSORED BY
About sponsorship

France's new government

What next for Jacques Chirac and his dominant centre-right?

Jun 20th 2002 | PARIS
From The Economist print edition

AP

France's new government has a fresh wind behind it but the same old pitfalls ahead

Get article background

TO EACH his view. The front-page headline on June 17th in the conservative *Le Figaro* proclaimed “Five Years to Change France”, while *Libération* sarcastically announced “A Five-Year Sentence”. Sour grapes from the left-wing daily? Probably. After all, the previous day France's voters had given right-wing candidates, supporters or allies of President Jacques Chirac, 399 of the National Assembly's 577 seats. Couple that with the right's dominance of the Senate and local government, and what stands in the way of Mr Chirac's pledge to “modernise” his country?

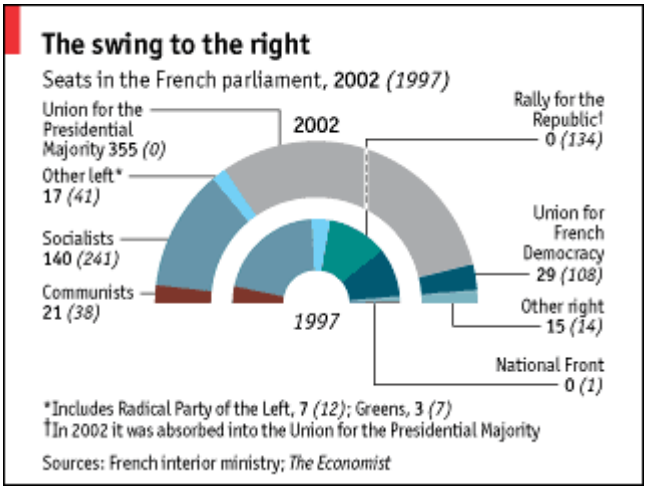
There are several answers, and probably the least of them is France's political opposition. This is now reduced in the National Assembly—the lower, and more powerful, house of France's parliament—to 140 Socialists, seven members of the Radical Party of the Left, three Greens, 21 Communists and seven left-wingers with no party affiliation. By contrast, the new government, to be led by Jean-Pierre Raffarin (pictured with the president above), can count on the self-explanatory support of 355 members of the Union for the Presidential Majority (UMP), plus the more-or-less permanent backing of 29 members of the Union for French Democracy (UDF), two Liberal Democrats, two members of the Rally for France, one member of the Movement for France and finally ten unaffiliated assorted right-wingers.

Yet the parliamentary arithmetic is not necessarily a good guide. Indelibly inscribed in Mr Chirac's political biography is the fact that when he was first elected president, in 1995, he inherited a similarly handsome majority in the National Assembly—and two years later, when he prematurely dissolved parliament, this was swept away by an electorate that had already, in December 1995, mounted massive street-protests against the reforms planned by Mr Chirac's prime minister of the day, Alain Juppé. Will a fickle and disgruntled electorate, whose abstention rate last weekend was a record 40%, once again put a spanner in the political works, if not by their votes (Mr Chirac is unlikely to repeat the error of calling an early election), then at least by their strikes and demonstrations? The pessimists are already noting this week's strikes by the country's paediatricians and air-traffic controllers.

But if the politics of the street is one obstacle to Mr Chirac's ambitions, so too is financial reality. In his campaign for re-election the president gaily promised all things to all voters. He pledged, for example, to cut income tax by 5% by September, and by a third within the five-year term of his new presidency. Moreover, he promised a “fresh start” in calculating housing taxes; a lowering of corporation taxes to the European Union average; a cut in employment charges; and a reduction from 19.6% to 5.5% in the value-added tax charged on compact discs and restaurant meals. And to those fiscal pledges, add a few physical ones: more police on the beat, for example, with better equipment, and more prison-type institutions for young criminals. Add, too, a whole range of subsidies designed to help the young and

women to find jobs. In the end, the total cost becomes a matter of guesswork.

What is certain, however, is that the government will not be able to pay the bill and still balance its budget by 2004—a goal to which France and other eurozone members are all supposedly committed. After all, economic growth this year is likely to be around 1.5% , while Mr Chirac's plans are based on annual growth of 3%; thanks to the slowing economy, the budget deficit will probably be some 2.6% of GDP, compared with a self-serving forecast made in February by the previous Socialist-led government of 1.5%.



Arguably, the government can afford to thumb its nose at the euro-zone rule. In the view of Francis Mer, the new finance minister, the commitment is not “engraved in stone”. In any case, Germany—whatever its present insistence that all countries must stick to the rule—and Portugal may end up backing France simply because they are in the same budgetary bind.

The real question is to what extent the government can disappoint its voters. Thanks to all the various allowances for children and so on, only half of France's households earn enough to pay income tax, which means that the proposed cuts in in it will disproportionately favour the rich above the poor. At the same time, Mr Mer is not keen on a real rise in the minimum wage; indeed, his aim is to rationalise this wage, which comes in a bewildering variety of levels. Moreover, privatisation, one obvious way to lessen the government's financial woes, may turn out to be more easily envisaged than achieved. For many of the state's holdings, for example its quarter share in the Renault car company, this is a bad time to sell. And some of the most valuable candidates, notably EDF, the electricity provider that is 100% owned by the state, have an almost talismanic status that would make their sale politically and socially difficult.

Softly, softly

Hence the importance of keeping the public's disappointment in check. In hindsight, Mr Juppé's mistake in 1995-97 was not just that his government ignored its election pledges, but that it did so with such arrogance. President Chirac has learned the lesson. That is one reason why he chose the unassuming, deceptively down-to-earth Mr Raffarin as his prime minister, though Mr Juppé, smoothly gaining the leadership of the UMP, is a power behind the throne.

Moreover, the Raffarin government formed this week makes an appealing mix, even more so than his interim government formed to take care of the six weeks between the presidential and parliamentary elections. One minister, under judicial investigation, has had to go. But whereas there were six women in the 27-strong interim government there are ten in the new 39-strong team, including Claudie Haigneré, France's first woman astronaut and now a junior minister for research and new technology. In addition to Tokia Saïfi, a woman in charge of “the struggle against precariousness and exclusion”, France's Muslim minority is also represented by the Algerian-born Hamlaoui Mekachera, who fought for the French in the Algerian war of independence and is now made responsible for war veterans. Add other non-politicians, such as Mr Mer (a former industrialist) and, at the education ministry, Luc Ferry, a philosopher, and with luck this broad-based team will encounter less of the popular opposition that Mr Juppé's lot engendered.

Will the parliamentary left provide that opposition, nonetheless? Not as loudly or as articulately as it must have hoped. Among the electoral casualties of last weekend's vote were the Communist leader, Robert

Hue; the Greens' Dominique Voynet; Jean-Pierre Chevènement, a Socialist vainly hoping to weld a left-right “Republican” alliance; and the Socialists' former Europe minister, Pierre Moscovici. But the most notable casualty of all was a tearful Martine Aubry, creator of the 35-hour working week.

Making that 35-hour week more flexible (by allowing workers extra hours of well-paid overtime) is a priority for Mr Chirac and his prime minister. But it is not the only item for “modernising France”. Others will be a reform of the civil service, which makes up 26% of the workforce; a check on spiralling health costs; and, prompted by demographic necessity, bringing private-sector funds into the pension mix. Since all this will be, at the least, controversial, the Chirac presidency and the Raffarin government had better savour their triumph while they can. There will surely come a point, perhaps sooner rather than later, when the taste turns sour.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Economist.com WORLD EUROPE
PRINTABLE PAGE VIEW SPONSORED BY
About sponsorship

The right in Germany

Edmund Stoiber sets out his stall

Jun 20th 2002 | FRANKFURT
From The Economist print edition

Germany's right-wing candidate is getting better at selling his wares

AP

"IN 96 days, the nightmare of the Social Democrats and Greens in Berlin will be over!", so Edmund Stoiber, the conservative candidate for Germany's chancellorship, told jubilant Christian Democrats at their party congress this week in Frankfurt. "Those who've been unable to achieve anything in four years won't manage anything in eight. Germany can't afford to give Mr Schröder a second chance. I've been a better state premier than he was, and I'll be a better chancellor. In 96 days' time, Germany will be back on its way up!" The 1,000-odd delegates, meeting for the last time before Germany's general election due on September 22nd, leapt to their feet in rapturous applause as the silver-haired Bavarian gathered his wife of 34 years in a tender embrace.

This was a new Stoiber. Gone the stiff, ascetic technocrat. Here was a man of passion and wit, with the scent of victory in his nostrils, who finally seemed to have acquired a capacity for the speech-maker's knockout blow. It was hard to remember that only a year ago, few commentators gave the Christian Democrats and their Bavarian sister party, the Christian Social Union (led by Mr Stoiber), even a ghost of a chance to win the coming general election, certainly not with Mr Stoiber at their head.

In the German republic's 53 years, a Bavarian has never become chancellor. Mr Stoiber repeatedly said he did not even want the job. Yet the Christian Democrats are now solidly behind him. For months, the conservatives and the liberal Free Democrats, their likely coalition partners, have held a clear lead in the polls. For many, victory is now in the bag.

The Social Democrats' attempt to paint Mr Stoiber into a right-wing populist's corner has flopped. The Bavarian leader is managing to present himself as a middle-of-the-road moderate. His policies are designed not to frighten anyone. Not for him American-style hiring and firing, he says. "Workers and their families rightly expect job security." True, his aim was to slash public spending from 48.5% of GDP to under 40%, but that, he now explains, was a long-term goal with no deadline. He would not dream of dismantling Germany's generous welfare system, as the Social Democrats have been suggesting. He wanted "performance *and* solidarity, individual freedom *and* social security, self-reliance *and* help for the needy".

Indeed, there is not much in his manifesto that could not equally well appear in Gerhard Schröder's. Mr Stoiber promises to bring down the top income-tax rate from a current 48.5% to under 40%. Under Mr Schröder's tax reforms, it is already due to fall to 42% by 2005. Mr Stoiber says he will reduce the burden of welfare contributions to less than 40% of average wages. That was, and still is, Mr Schröder's aim: his government managed to trim contributions to 40.8% last year, down from 42.3% in 1998, but these have since edged up half a percentage point again. Mr Stoiber promises to reform pensions and health, but his proposals are still vague.

None of this seems to bother voters, probably because the government's own reform plans are no clearer. What is important is that Mr Stoiber, as premier of one of Germany's richest states, is regarded as more competent in economic matters than Mr Schröder. The predicted economic recovery, which could have helped boost his Social Democrats' chances, is proving slow to come. Unemployment, which he promised to cut to 3.5m, has edged up over 4m again, its highest level since late 1999. Bankruptcies are

running at a record level. The trade unions are restless. Following strikes by engineering workers last month, building workers laid down tools this week for the first time in over 50 years.

Meanwhile Mr Stoiber has been acquainting the nation with his “team of experts”, a kind of shadow cabinet, though no ministerial posts have been promised. Lothar Späth, a former Christian Democratic premier of Baden-Württemberg and now head of Jenoptik, a high-tech firm that is one of East Germany's most successful companies, is the only exception. He has been promised a new super-ministry for overseeing economics, employment and the revamping of eastern Germany. Wolfgang Schäuble, a former Christian Democratic leader and one of Germany's most experienced politicians, is in charge of foreign and security policy. Annette Schavan, Baden-Württemberg's innovative education minister, has been given education.

Three others are expected to be appointed soon: Günther Beckstein, Bavaria's tough interior minister, may have the same portfolio at the national level; Horst Seehofer, a reform-minded former federal minister for welfare, will look after welfare and health; and Friedrich Merz, who leads the conservatives' group in parliament, will handle finance.

This is a sound if not fresh-faced bunch. Mr Schröder's present lot looks jaded. But all is not yet lost for the Social Democrats. Their flagging morale has been lifted by the latest polls putting the conservatives' ten-point lead in early May down to just 2-4 points. Mr Schröder remains personally much better liked than Mr Stoiber. Germany's weighty trade-union federation has finally thrown its weight behind him. Business confidence is rising. The economy might yet perk up in time to produce better figures before September 22nd.

Most pundits are still hedging their bets. No German government since the war has been thrown out after just one term. But unless Mr Schröder can promise something other than simply more of the same, his chances of re-election must still be slim. And Mr Stoiber is getting better at looking like a chancellor-in-waiting.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Kosovo

Crab-like progress

Jun 20th 2002 | PRISTINA
From The Economist print edition

Foreign soldiers and administrators must stay in Kosovo for a long time yet

AP

Outsiders still keep a beady eye on things

THE arc lights glowing in the night from the heavily-guarded perimeter of Camp Bondsteel, America's big military base in southern Kosovo, give the impression, at least, that the western commitment to keeping the peace in the southern Balkans is deep-rooted and enduring. But how real is that commitment and how much longer will such a military force, still 38,000-strong, be needed?

Three years after NATO's troops marched into Kosovo, in the wake of an 11-week bombing campaign which forced the Yugoslav army to withdraw, the province is inching, at best, towards stability and security. But its political future remains wide open, and many of the locals still prefer international tutelage to most of the likely alternatives. So the day when Kosovo can say goodbye to its overlords and live happily ever after is a long way off.

The good news, perhaps, is that an elected administration, at provincial and local level, is just about functioning; but the knee-deep potholes in Pristina, Kosovo's capital, are a reminder of how badly local government has performed. With thousands of foreign bureaucrats, soldiers and policemen shouldering many of the tasks of government—from running hospitals and electricity grids to removing land-mines and fighting crime—there may be too little incentive for Kosovo's 1.8m people to take responsibility themselves. So it may be a healthy sign that NATO has announced a cut in its troop strength, by next spring, to 33,200.

For several reasons, the pace of change must now accelerate. As Michael Steiner, the German diplomat who oversees the province for the UN, bluntly acknowledges, Kosovo's claim on the world's—and above all, America's—time and money has fallen since last September's attacks on New York and Washington.

Nor can discussion of Kosovo's future be postponed much longer. A UN resolution describes the province as part of Yugoslavia; but that country is currently being reshaped, under pressure from the European Union, into a looser partnership known simply as “Serbia and Montenegro”, after its two constituent states.

Where does that leave Kosovo? The province's elected politicians reject any option short of full independence. But unless that were accepted by Serbia—and supported, economically and militarily, by

outsiders—its mere proclamation could simply bring fresh violence.

The protectors, too, have their own reasons for wanting to keep the province on a tightish rein, however strongly local Kosovars aspire to independence. The endemic crime and corruption in Kosovo are a powerful argument for staying. Diplomats from the United States and its four main partners in Kosovo—Britain, France, Germany and Italy—say that their oversight will be needed until the closely related scourges of organised crime and ultra-nationalism are beaten back.

As Mr Steiner has observed, ethnic-Albanian mafia syndicates, many of them rooted in Kosovo, have taken control of the underworld in much of Europe. Just as the drug trade fuelled the warlords of Afghanistan, a high proportion of heroin sold on the streets of Europe is shipped and controlled by criminals from Kosovo and northern Albania whose tentacles stretch from southern Italy to the Gulf of Finland. Noting the third anniversary of NATO's entry into Kosovo, Mr Steiner said that Kosovo's status could not be seriously addressed until several benchmarks are met, including the establishment of the rule of law, democratic institutions, the safe return of Serbs, freedom of movement for all inhabitants, and economic regeneration.

In order to quash the threat from crime, the province's overlords must also deal with orchestrated inter-communal hatred. Ethnic-Albanians complain that their people have been expelled without redress from the northern, Serb-dominated part of the mining town of Mitrovica. On the other hand, very few of the 200,000 or so non-Albanians (mostly Serbs) who fled the province after NATO's victory have ventured back.

Avoiding a spill-over

The imperative to stop crime and nationalist extremism inside Kosovo is not simply moral. Unless held in check, Kosovo-based armed groups could still destroy the fragile peace in neighbouring Macedonia, which has been holding, but only just, since last autumn when a NATO force relieved an ethnic-Albanian rebel force of some of its weapons.

Clashes continue along the border between Macedonia and Kosovo as part of a game of mutual provocation which Slav-Macedonian and ethnic-Albanian hardliners have been playing, with increasing intensity, ahead of the parliamentary elections due this autumn. Five British army officers, who liaise with Macedonia's defence ministry in Skopje while keeping an eye on the Albanian fighters in the nearby hills, have played a key role in keeping fingers off triggers. But they and the 1,500 other European troops deployed in Macedonia will face an increasing challenge from provocateurs bent on wrecking the electoral process.

In Kosovo, meanwhile, UN police this week detained six senior veterans of the Kosovo Liberation Army on charges of killing fellow-Abanians in June 1999, soon after NATO's victory. Once these suspects have been hauled before the UN-supervised courts in Kosovo, an even bolder move may follow: the despatch of some senior Kosovo Albanians to face war-crimes charges in The Hague. Already, certain Kosovar bosses are in the Hague tribunal's sights; the question, say diplomats in Pristina, is “not if, but when” they are nabbed. Such a display of even-handedness could enhance NATO's authority, boost the confidence of non-Albanian minorities and help end Mitrovica's partition. But there is also the risk that Kosovo's ethnic-Albanians might riot if leaders whom they see as heroes are sent for trial.

Brigadier Simon Mayall, who commands British forces in Kosovo, says there could still be a “hot summer” in Mitrovica or on the border with Macedonia. But if both Kosovo and Macedonia can stagger along more or less peacefully until the autumn elections in both places, then next year might be calmer. By 2004, Serbia may want to apply to join the European Union. It would have a much better chance of being accepted as an applicant if it made a deal in Kosovo. Between then and now, many dragons still need slaying.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

The Czech general election

The left holds on

Jun 20th 2002 | PRAGUE
From The Economist print edition

The Social Democrats, still in power, now have a chance to do better

AP

Spidla celebrates

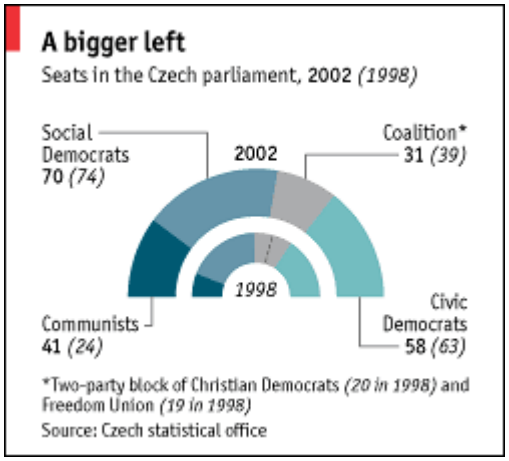
AFTER left-wing victories last autumn in Poland and two months ago in Hungary, the Czechs last week followed their neighbours' suit, making Central Europe buck the trend to the right on the western side of the continent. And the Czech Social Democrats, who have been in power since 1998, also managed to flout post-communist Central Europe's tradition of kicking governments out of office after only one stint in power.

But the Czechs will at least have a new prime minister in the person of Vladimir Spidla (pronounced Shpeedla), a trim 51-year-old long-distance runner, who succeeds Milos Zeman, a tired 58-year-old. The three chief countries in Central Europe all now look well equipped, under moderate, market-oriented governments of the centre-left, to join the European Union, with luck in 2004.

The Social Democrats will no longer have to co-operate with an abrasive, self-avowed Thatcherite, Vaclav Klaus, who in the past four years had helped set the legislative agenda as parliament's speaker, thanks to a pact which had held good because the Social Democrats, though parliament's largest party, were in a minority, and therefore had to co-operate with Mr Klaus's Civic Democrats.

Now the Social Democrats look set to rule more easily in coalition with a two-party block of Christian Democrats and free-market liberals, itself known as Coalition, although that combination will give Mr Spidla only a one-seat majority in parliament. For Mr Klaus, now 61, who as prime minister had run the republic with verve from 1992-1997 (at first in harness with Slovakia), it may be the end of his political road.

The Social Democrats won 30% of the vote and 70 of parliament's 200 seats (see chart), with promises to create 200,000 new jobs, build houses for cash-strapped young Czechs and get the country into the EU by the target date of 2004. Mr Spidla, a former archaeologist, is duller but more reliable than the boozy Mr Zeman. He will eject some of the more dubious cronies in Mr Zeman's circle and promote some of the younger members of the current cabinet, such as the popular defence minister, Jaroslav Tvrdik.



The country's tilt to the left owes as much to Mr Klaus's outsized ego as to any profound ideological shift. His Civic Democrats, who won 25% of votes cast and 58 seats, ran a plainly disastrous campaign by banking on the personality of their leader. On skis, playing tennis, flanking a pop star, looking studious, Mr Klaus beamed out from every billboard and flyer. But he lost his televised debates with Mr Spidla and his strident nationalism fell as flat as his automated calling of thousands of voters at home with a recorded message that democracy was under threat.

Pollsters reported that undecided voters were turned off by Mr Klaus. He may well have harboured hopes of succeeding the ailing Vaclav Havel as president when the job falls vacant next year. No longer. Mr

Havel, the dissident playwright who led the Czechs and Slovaks to freedom from communism in 1989, abhors Mr Klaus and his adversarial attitude. Mr Havel is thought to be delighted by the Czechs' rejection of his old foe.

Unadulterated reds did well too

The shock of the election—and a warning to Mr Spidla that many Czechs are unhappy with all the mainstream parties—was the success of the Communists, who, though unreformed and unapologetic about their past, won 19% of the vote and 41 seats, nearly twice their tally last time round, in 1998. They promised bigger pensions, a shorter working week, and withdrawal from NATO, which the republic joined amid great fanfare in 1999. Most of their voters are ageing ideological diehards and workers disgruntled by the demise of old industries.

But this time the Communists also attracted poor rural people in winegrowing parts of Moravia, on the Austrian border, and persuaded quite a few young urban voters to plump for them too. Mr Spidla has firmly ruled out any kind of deal with them but they may be hard to ignore altogether and could win some parliamentary if not governmental posts.

Local businessmen have on the whole taken Mr Spidla's win calmly. Some fear he will refuse to loosen the country's labour laws. Others are wary of his old-fashioned loyalty to the welfare state. But most think he should guarantee a hopeful continuity. In Western Europe, among those who are keen to see the Czechs inducted into the EU, Mr Klaus's failure has been a relief, for he is one of Central Europe's Eurosceptics and might have made the Czech entry into the club trickier.

With one of the region's more robust and fast-growing economies, the Czechs now look well set to come in. Banks are in private hands, a good number of state monoliths have been closed or revamped, corruption may be less pervasive than it was in the earlier post-communist period. The Czechs expect foreigners to invest some $10 billion this year and next, most of it in car-making and electronics, some four times a head more than the Poles are likely to get.

Still, Mr Spidla cannot be complacent. He has some hard tasks ahead. For a start, he must still sell the state electricity and telephone monopolies. He cannot loosen the purse strings for fear of prompting inflation. Reforming the Czechs' pension system and their health service will be necessary but unpopular. Putting off such matters will only store up trouble for the Czechs' future.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

HTTP/1.1 200 OK Server: Microsoft-IIS/5.0 Date: Tue, 13 Feb 2007 07:18:09 GMT PICS-Label: (PICS-1.0 "http://www.rsac.org/ratingsv01.html" l on "2003.08.07T15:47-0400" exp "2006.01.01T12:00-0400" r (v 0 s 0 n 0 l 0)) Connection: close Content-type: text/html; charset=ISO-8859-1 Page-Completion-Status: Normal Page-Completion-Status: Normal Page-Completion-Status: Normal Set-Cookie: CFID=110549047; path=/; domain=.economist.com; Set-Cookie: CFTOKEN=1a848e0%2D005c9588%2Da62f%2D4175%2D93fa%2Dc114448de097; path=/; domain=.economist.com;

Economist.com WORLD EUROPE

PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

The Czech general election

The left holds on

Jun 20th 2002 | PRAGUE
From The Economist print edition

The Social Democrats, still in power, now have a chance to do better

AP

Spidla celebrates

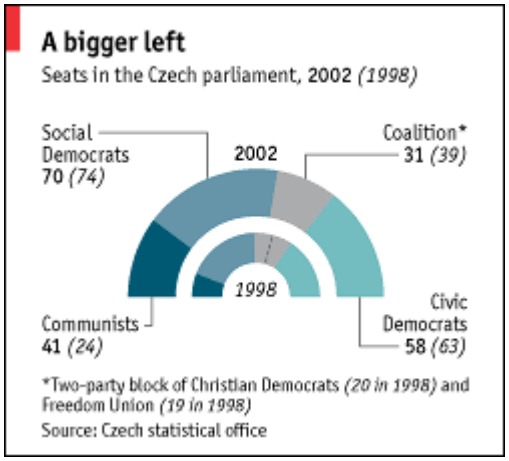
AFTER left-wing victories last autumn in Poland and two months ago in Hungary, the Czechs last week followed their neighbours' suit, making Central Europe buck the trend to the right on the western side of the continent. And the Czech Social Democrats, who have been in power since 1998, also managed to flout post-communist Central Europe's tradition of kicking governments out of office after only one stint in power.

But the Czechs will at least have a new prime minister in the person of Vladimir Spidla (pronounced Shpeedla), a trim 51-year-old long-distance runner, who succeeds Milos Zeman, a tired 58-year-old. The three chief countries in Central Europe all now look well equipped, under moderate, market-oriented governments of the centre-left, to join the European Union, with luck in 2004.

The Social Democrats will no longer have to co-operate with an abrasive, self-avowed Thatcherite, Vaclav Klaus, who in the past four years had helped set the legislative agenda as parliament's speaker, thanks to a pact which had held good because the Social Democrats, though parliament's largest party, were in a minority, and therefore had to co-operate with Mr Klaus's Civic Democrats.

Now the Social Democrats look set to rule more easily in coalition with a two-party block of Christian Democrats and free-market liberals, itself known as Coalition, although that combination will give Mr Spidla only a one-seat majority in parliament. For Mr Klaus, now 61, who as prime minister had run the republic with verve from 1992-1997 (at first in harness with Slovakia), it may be the end of his political road.

The Social Democrats won 30% of the vote and 70 of parliament's 200 seats (see chart), with promises to create 200,000 new jobs, build houses for cash-strapped young Czechs and get the country into the EU by the target date of 2004. Mr Spidla, a former archaeologist, is duller but more reliable than the boozy Mr Zeman. He will eject some of the more dubious cronies in Mr Zeman's circle and promote some of the younger members of the current cabinet, such as the popular defence minister, Jaroslav Tvrdik.



The country's tilt to the left owes as much to Mr Klaus's outsized ego as to any profound ideological shift. His Civic Democrats, who won 25% of votes cast and 58 seats, ran a plainly disastrous campaign by banking on the personality of their leader. On skis, playing tennis, flanking a pop star, looking studious, Mr Klaus beamed out from every billboard and flyer. But he lost his televised debates with Mr Spidla and his strident nationalism fell as flat as his automated calling of thousands of voters at home with a recorded message that democracy was under threat.

Pollsters reported that undecided voters were turned off by Mr Klaus. He may well have harboured hopes of succeeding the ailing Vaclav Havel as president when the job falls vacant next year. No longer. Mr Havel, the dissident playwright who led the Czechs and Slovaks to freedom from communism in 1989, abhors Mr Klaus and his adversarial attitude. Mr Havel is thought to be delighted by the Czechs' rejection of his old foe.

Unadulterated reds did well too

The shock of the election—and a warning to Mr Spidla that many Czechs are unhappy with all the mainstream parties—was the success of the Communists, who, though unreformed and unapologetic about their past, won 19% of the vote and 41 seats, nearly twice their tally last time round, in 1998.

They promised bigger pensions, a shorter working week, and withdrawal from NATO, which the republic joined amid great fanfare in 1999. Most of their voters are ageing ideological diehards and workers disgruntled by the demise of old industries.

But this time the Communists also attracted poor rural people in winegrowing parts of Moravia, on the Austrian border, and persuaded quite a few young urban voters to plump for them too. Mr Spidla has firmly ruled out any kind of deal with them but they may be hard to ignore altogether and could win some parliamentary if not governmental posts.

Local businessmen have on the whole taken Mr Spidla's win calmly. Some fear he will refuse to loosen the country's labour laws. Others are wary of his old-fashioned loyalty to the welfare state. But most think he should guarantee a hopeful continuity. In Western Europe, among those who are keen to see the Czechs inducted into the EU, Mr Klaus's failure has been a relief, for he is one of Central Europe's Eurosceptics and might have made the Czech entry into the club trickier.

With one of the region's more robust and fast-growing economies, the Czechs now look well set to come in. Banks are in private hands, a good number of state monoliths have been closed or revamped, corruption may be less pervasive than it was in the earlier post-communist period. The Czechs expect foreigners to invest some $10 billion this year and next, most of it in car-making and electronics, some four times a head more than the Poles are likely to get.

Still, Mr Spidla cannot be complacent. He has some hard tasks ahead. For a start, he must still sell the state electricity and telephone monopolies. He cannot loosen the purse strings for fear of prompting inflation. Reforming the Czechs' pension system and their health service will be necessary but unpopular. Putting off such matters will only store up trouble for the Czechs' future.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Economist.com WORLD EUROPE
PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

Hungary's embattled prime minister

He admits he spied but it was long ago

Jun 20th 2002 | BUDAPEST
From The Economist print edition

Hungary's new prime minister is exposed as a former communist spy

AN OFTEN-MENTIONED fault of Peter Medgyessy, Hungary's new prime minister, was that he was boring. No longer. This week, he was pushed to the brink of resignation after being forced to admit that he had worked for five years as an agent of Hungary's communist-era counter-intelligence service. Even in Hungary's turbulent history, it would have been a brief stint at the top. Mr Medgyessy, an economist and former banker, took office only on May 27th.

The news about his past particularly rattled the Free Democrats, a small liberal party which governs in coalition with his Socialists. As former dissidents, most of the Free Democrats' MPs have bleak memories of the various intelligence services. They were very unhappy to have the prime minister's past suddenly aired in front-page articles in *Magyar Nemzet*, a right-wing newspaper close to Viktor Orban's recently-ousted centre-right government. The new government relies on the Free Democrats' 20 votes for its 10-seat majority.

At least for the moment, nevertheless, the prime minister has slipped off the hook. He started his bid for survival by throwing the Free Democrats something they have long wanted by proposing a new law to ensure that counter-intelligence-agency files will be treated in the same way as other Hungarian communist-era secret-police files. They will be kept separately, in the Institute of History, and not left in the hands of the existing intelligence services. The institute will, in theory, be more open about revealing politicians' pasts.

Mr Medgyessy denied some of the allegations against him while seeking to put those he admitted in a less ugly light. Certainly, he said, he had worked as a counter-intelligence agent in Hungary's finance ministry from 1977 to 1982. But he had merely protected Hungary's economic secrets from foreign spies and prevented them from spiking Hungary's attempts to join the IMF. Patriotic stuff, really. The countries trying to steal Hungary's economic secrets in those days, his friends explained, would have been other communist countries, such as East Germany. The Russians wanted to stop Hungary from joining the IMF, though it did so in 1982.

The prime minister fiercely denies, however, that he did anything worse. He has said he will sue *Magyar Nemzet* over stories suggesting he wrote sneaky reports for the intelligence services on his friends in 1961 and on “counter-revolutionary activities” in 1978. The documents behind these stories, he says, are forgeries. His political survival may depend on that being true. In any case, it was a pity he did not come clean before he entered post-communist public life. Traitor, sneered the right-wingers he only recently defeated.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Economist.com WORLD EUROPE
PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

Charlemagne

Valéry Giscard d'Estaing, Europe's conductor

Jun 20th 2002
From The Economist print edition

Can Europe's latest constitutional orchestrator turn discord into harmony?

Get article background

VALERY GISCARD D'ESTAING is not someone who normally inspires masses of sympathy. Indeed, the 76-year-old chairman of the European Union's constitutional convention is often portrayed as haughty, devious and elitist—everything, in short, the world is supposed to expect of a former president of France.

Even so, the barrage of insults that has come Mr Giscard d'Estaing's way since his appointment in December seems excessive. There were disobliging comments about his age: how could a man of the past be put in charge of Europe's future? Then there were suggestions that he was demanding grotesque amounts of money for putting himself at the EU's disposal. Calumnies, apparently. He is not being paid a salary and is operating from a modest little office on the fifth floor of the Council of Ministers in Brussels: the Elysée Palace it ain't. His choice of decoration, however, does little to fend off the charge that he is yesterday's man. In pride of place is a framed photo from the 1970s of President Giscard d'Estaing with Helmut Schmidt, the then chancellor of Germany. “I still talk to him a lot,” says Mr Giscard d'Estaing of his fellow old-timer. “He has many excellent ideas.”

Sensitive to charges that he is an instinctive authoritarian who already has his own secret draft of a European constitution in a desk drawer, Mr Giscard d'Estaing is at pains to stress that he is still in listening mode as the convention enters its fourth month. It is crucial, he says, that every one of its 104 members should have their say. Rather improbably, he insists that he is keenly looking forward to hearing the views of the representatives of “civil society”—trade unionists, youth groups and the like—who will address the assembly next week. His demeanour is more that of a grandfather than a monarch.

Yet Mr Giscard d'Estaing continues to arouse suspicion on all sides. Eurosceptics suggest that a “non-paper” produced by his secretariat, which sets out some of the ideas that the convention will deal with, is in fact a draft constitution that lays the groundwork for the EU to act as a single state in foreign affairs. Arch-federalists have the opposite fear. They worry that Mr Giscard d'Estaing wants a Union run by national governments, in which the European Commission and the European Parliament play distinctly humbler roles.

The man himself certainly sounds cautious about handing over more powers to “Brussels”. One of the things that has already become evident from the convention so far, he says, is that there is no strong demand that powers within the European Union should become more centralised: “Europeans don't want a strong central political power,” he asserts. “They want certain things done in common.” Such as? Mr Giscard d'Estaing lists the establishment of an internal market, which he says is “far from complete”; co-operation in justice and home affairs; a stronger foreign and security policy; and management of the euro, Europe's common currency.

But who would guide this co-operation? It is already becoming clear that one of the key issues for the convention is a proposal from Britain and Spain that the national governments should elect a president of the Council of Ministers, the forum which brings together ministers from national governments. Such an idea doubtless sounds innocuous outside the incestuous world of European constitutional politics but it is potentially far-reaching. An elected president of the council would immediately become the Union's public face and would probably take his cue first of all from governments of the EU's component nations rather than from the European Parliament or the European Commission in Brussels. Indeed, the commission would almost inevitably become less powerful, slipping down from being a European government in embryo to something much closer to a civil service.

Mr Giscard d'Estaing has not pronounced publicly on what he thinks of the idea of an elected president of the council. But it is pretty clear that he looks favourably on it. The convention's keener federalists are already sounding the alarm. Andrew Duff, a convention member who is that rare beast, an ardent integrationist who is also British, says that “Giscard seems to feel the commission has completed its work and can now just service the council. He treats the commission with contempt, and that's a big mistake.” Senior commission officials share that judgment. Mr Giscard d'Estaing curls his lip when he discusses the commission's recent paper on Europe's future, which set out ambitious plans for the commission to run a single European foreign policy and to get much more power over national fiscal policies. It is, he makes plain, just another contribution to the debate.

Push-me-pull-you

It is hard to blame Mr Giscard d'Estaing for being a little cagey. For as the convention unfolds his task is looking increasingly tricky. He needs to coax the convention's members into producing a document that commands a consensus, and then he needs to sell the product to Europe's individual governments. The difficulty is that the convention is packed with keen federalists, whereas a drift to the right in European politics means that national governments look less and less likely to agree to a big new leap towards an ever-more-integrated Europe.

In such circumstances Mr Giscard d'Estaing may fall back on some old instincts. The first 50 years of European integration, he says, were based on a Franco-German entente. “The failures of the European system recently coincided with the failures of the Franco-German couple.” Making that relationship cosy again is “fundamental”, for it will remain “the most important relationship in Europe”, even after the 15-member Union expands to take in ten new members, mainly from Central Europe. Helmut Schmidt would doubtless agree. Whether a younger generation of leaders in Poland, Britain, Italy, Spain or even Germany will see things the same way is a lot less certain.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

Criminal justice

Tipping the scales

Jun 20th 2002
From The Economist print edition

Voters are getting increasingly worried about crime. That's why the government wants to shift the balance of the criminal justice system against defendants

Get article background

WHY crime has risen so much further and faster in Britain than in any other rich country over the past half-century (see chart) is anybody's guess. Maybe it's the result of near-American levels of relative poverty and family breakdown combined with a European reluctance to bang up quite such a large proportion of the population as America does. Anyway, the long-term causes are of less immediate interest to the government than a short-term fix. Popular concern about crime is rising: according to MORI's polls, 23% of people rated it as one of the most important issues for the government at the beginning of this year; 34% do now.

Faced with a problem, governments reach for the statute book. Since Labour came to power five years ago, it has passed nearly a dozen Criminal Justice Acts. This week, Tony Blair held out the prospect of more legislation. There was an urgent need, he said, to redress the balance of the law in favour of victims. Criminal justice had to be "dragged from the 19th to the 21st century". He described a White Paper to be published next month as the most radical shake-up of the criminal justice system in decades.

Yet the results of the legislation enacted so far are disappointing. Statistics to be published next month will show that muggings, burglary and robbery, the offences which the public fear most, are all on the increase. For a government that came to power promising to be tough on crime, it doesn't look good.

An official report concluding that the criminal justice system is failing has added to the government's problems. The Audit Commission, the government's watchdog, says that police too often charge suspects with the wrong offences, use inaccurate computerised information and face serious inefficiencies in the forensic science service. Court delays alone are costing taxpayers £80m ($120m) a year. The result is that few criminals are brought to justice and even fewer

convicted. Only 6% of the more than 5m offences recorded by the police last year resulted in a conviction. Hardly surprising, then, that more than half the public believes that the criminal justice system is ineffective.

The main purpose of the White Paper is to address concerns that the procedures of the court are weighted too heavily against the prosecution. It is expected to include many sensible and uncontroversial proposals. It will, for instance, ask for more support for witnesses, many of whom are frightened of testifying. A survey of one London court found that, of 140 witnesses called in a two-week period, only 19 actually turned up.

Making juries more representative must also make sense. Getting off jury service is too easy. In some London courts, two-thirds of those called for jury service fail to turn up. As a result, juries are often composed of housewives, the unemployed and the retired. The White Paper will recommend curbing exemptions for professionals, who can excuse themselves by saying their work is too important, and will propose penalties for those who fail to comply.

The government has been trying to limit the right to trial by jury: magistrates, defendants believe, are more willing to convict than are juries. It has failed because of backbenchers' qualms, and has given up the idea, except for complex fraud trials, which will be taken out of the hands of juries altogether and given to a judge and two assessors. It wants, however, to increase magistrates' sentencing powers, which will cut the number of cases that are sent for jury trial.

An American-style system of plea-bargaining, if adopted, should encourage petty criminal defendants to plead guilty at an earlier stage. That will reduce the likelihood of a Crown Court and its jury being tied up for a day in order to decide whether or not a defendant has stolen a 92p can of baked beans (yes, really).

Other proposed reforms will be more controversial. At present, no defendant can be tried for the same offence twice even if compelling new evidence emerges. The government's plan to scrap that double jeopardy law will be resisted by civil liberties campaigners, as will the proposal that previous convictions should be disclosed in open court where they are relevant to the case being heard.

Whether or not such proposals make it into law, the White Paper will not do much to address public concerns. The reason why 94% of crimes do not result in a conviction is that three-quarters of them are not cleared up, and so nobody is charged. That is the fault of the police, not the courts; and that is the part of the criminal justice system that the government needs to focus on if it is to make a difference.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Northern Ireland

The question that won't go away

Jun 20th 2002
From The Economist print edition

Did the security services collude in the murder of a Belfast lawyer?

PAT FINUCANE, a 38-year-old Belfast lawyer, was eating dinner with his wife and three children in 1989 when masked men sledge-hammered in the front door and two gunmen shot him 14 times. His murder is the focus of claims that the security forces colluded with Protestant paramilitaries to assassinate Catholics at the height of Northern Ireland's violence. These claims are being investigated by Sir John Stevens, commissioner of London's Metropolitan Police; and this week's edition of “Panorama”, a BBC documentary series, lends them weight.

A member of the loyalist Ulster Defence Association, Ken Barrett, told “Panorama” that police officers urged the UDA to kill Mr Finucane and that the killers struck when a policeman confirmed there were no patrols nearby. “To be honest,” says Mr Barrett, “Finucane would have been alive today if the peelers [police] hadn't interfered.” The programme also shows members of Sir John's team saying that military intelligence lied to them, particularly about Brian Nelson, an army agent who also collated intelligence on targets for UDA killers.

Mr Finucane's family and others want a public inquiry into his murder and that of Rosemary Nelson, another Catholic lawyer, ten years later. However, many people, both unionist and republican, are sceptical about inquiries. The inquiry into the Bloody Sunday killings 30 years ago trundles on in Londonderry, at huge cost and with a final judgment still at least two years away. Unionists say it is no more than a sop to republican demands, republicans that a British-run investigation will never accuse anyone senior in the security forces or government.

Sir John Stevens has been investigating the collusion allegations since 1989. He has produced two inconclusive reports and is due to deliver a third in the next few weeks. The earlier reports led to charges against two odd figures: a self-proclaimed loyalist double agent, Billy Stobie, shot dead last year within weeks of acquittal on a charge related to the Finucane murder; and Brian Nelson, another double agent who served only five years in jail although it emerged that he had helped target several Catholics. Mr Stobie was shot after repeatedly claiming that he had given information which could have both prevented the murder of Mr Finucane and led to the recovery of the gun used.

Several loyalists have reported conversations with police during the 1980s in the course of which officers suggested that they should kill Mr Finucane and other named Catholic lawyers. Mr Finucane had been particularly effective in a case which accused police of shoot-to-kill tactics against unarmed republican suspects. His connections, as well as his work, made him a hate-figure for some in the Royal Ulster Constabulary. One brother had been killed in a car-crash on IRA active service, another successfully contested an attempt to extradite him from the Irish Republic as an IRA suspect, and a third, interned as a teenager, was the fiancé of Mairead Farrell, one of three IRA members shot dead by the SAS in Gibraltar.

Some hoped the transformation of the old Royal Ulster Constabulary into a new reformed Police Service of Northern Ireland would defuse old controversies. At the moment, that seems unlikely.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

British Museum

Sorry, we're closed

Jun 20th 2002
From The Economist print edition

Hard times at the British Museum

Making an exhibition of themselves

A MONUMENT to imperialist plunder, the home-away-from-home of the Elgin marbles, a showcase of booty looted from the four corners of the earth by gangs of marauding dead white gentlemen? Or a gigantic Aladdin's cave of global culture spanning centuries and continents, lovingly maintained for the benefit of anyone with an interest in the world they live in? However you see it, there's nowhere else like it: the British Museum is unique. Except in one respect: it is short of money.

Behind the bizarre variety of artefacts, the British Museum has another, less visible, side. It is a repository not only of things but also of knowledge. Its ten curatorial departments are staffed by experts dedicated to preserving, exhibiting and studying the objects they look after. Each of these departments—taking in everything from stone-age tools through Assyrian reliefs to Sèvres porcelain—has a students' room where scholars may delve into the museum's archives. Much of the collection can be accessed electronically, while touring exhibitions make its treasures accessible all over the world.

The trouble is, this is all rather expensive. The museum's trustees recently announced plans to cut 150 jobs after being warned that the museum could face a deficit of £5m ($7.5m) in three years if it does not drastically reduce costs.

The museum was closed on June 17th, when the majority of its 1,100-strong staff went on strike in protest at the proposed cuts. Gareth Williams, a curator and trade-union chairman at the museum, says the cuts will affect all core areas of the museum's activities. The inconvenience to one day's-worth of visitors, he argues, must be balanced against the long-term benefits to future users of the museum's resources. “Wherever cuts are made, there will be an impact. If the cuts are made now, the damage will be done and the museum may not recover.”

The present crisis has several causes. Managerial instability is one—following the highly publicised departure of its former managing director earlier this year, many other top staff members are also leaving. Other problems include the expense of the £106m Great Court development, grandly conceived by its architects, and the downturn in tourism after September 11th, which has hit revenues from shops, conferences and cafés.

The museum is funded largely by the government, through the Department for Media, Culture and Sport. Expenses for 2001-02 are estimated at £46.3m; the DCMS grant is £36m. Though government funding for the museum has risen over the past five years, the museum's director, Robert Anderson, nevertheless says that, once the extra costs associated with the Great Court have been taken into account, funding has shrunk by some 30% in real terms over the past ten years. When national museum admission charges were scrapped in 2001, additional government money went to compensate only those institutions which had previously charged for admission. The British Museum, having always been free to the public, got next to nothing.

It is the museum's esoteric and educational sides that will be most seriously affected by the squeeze. The pinch is already being felt. Around 30 galleries—often the more obscure and surprising ones, rather than those containing certified crowd-pleasers like Egyptian mummies and the Rosetta Stone—are closed for

part of each day. Plans for a new £80m study centre have been dropped, recruitment has been frozen, and £1m has been trimmed from the building-maintenance budget.

Further savings will be made by merging departments. One new mega-department would throw together 5,000 years of collections, from prehistoric to medieval. This will mean cuts not just in personnel but also in expertise.

The museum reckons it needs an extra £6m a year to avoid falling headlong into penury. The rescue programme approved by the trustees will only slow down the decline. A year of grand parties was planned for the museum's 250th anniversary in 2003. Champagne and fireworks? Orange juice and leftover Christmas crackers, more likely.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

Quakers

Quiet, please

Jun 20th 2002
From The Economist print edition

Self-promotion is hard for a movement that believes in the power of silence

THINGS are tranquil inside the Quaker meeting house on London's hectic Euston Road. About 30 people have shown up for a talk; this week's theme is the society's work in prisons. A speaker gently explains that Quakers think there is goodness and violence in everyone; that prison is harmful; that even convicted paedophiles need support to rejoin the community and not re-offend. Someone nods off in the back row. No one mentions that the society's 350th anniversary is a few days away.

Quakers prefer it like that. Quiet work and quiet worship have been their hallmarks since George Fox's hill-top vision started things off in 1652. Everyone, he thought, could directly experience the divine: pomp and ritual, creeds and clergy just got in the way. Better to meet for silent contemplation—punctuated by the occasional, sometimes quivery interjection (hence the name, which was originally a derisive joke). And better to practise your beliefs than preach.

To those who like a few certainties or a bit of a song and dance with their religion, silence can be hard to sell. In Britain, membership of the Religious Society of Friends—the Quakers' proper name—is down to 16,000, from 20,000 at the time of the 300th anniversary. Some people think they make oats (they never did; the company that does is now part of PepsiCo). Few know that there are now Buddhist, Muslim and Jewish Quakers. Last week's anniversary will not have changed much: apart from the odd picnic and patchwork class, it went largely unmarked.

Eudora Pascall, the Quakers' communications officer, is not concerned. Back-slapping and membership drives, she says, are just not their style: Friends prefer to let their lives speak for themselves. That can sound like cliqueishness; their record suggests not. British Quakers are currently on the ground in Uganda and Bosnia, Lebanon and South Africa; they tend to stay put after the aid agencies have moved on. In Germany, they run a café and advice centre for asylum-seekers. Befriending sex-offenders in Britain may be their bravest initiative of all.

Much of that work can be frustrating. Quakers' long-standing commitment to pacifism and conflict resolution has been tested in the last few months; at their yearly British meeting in May, speakers admitted to being distressed by their failure to make an impact. Even their successes can go unsung. In about the only official recognition of the anniversary, Elizabeth Fry, a Quaker who pioneered prison reform in the early 19th century, appeared last month on Britain's five-pound notes; after a few days the fivers turned out to be faulty and had to be withdrawn. Quakers, who know how to laugh at themselves, thought it was hugely funny. After 350 years, says Ms Pascall, they have learnt the value of patience.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Economist.com WORLD BRITAIN
PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

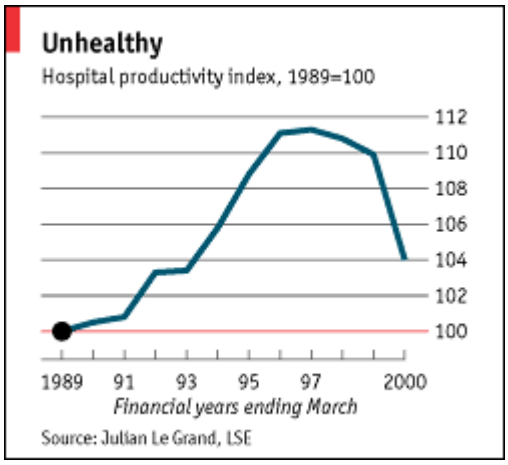
National Health Service

It isn't getting better yet

Jun 20th 2002
From The Economist print edition

The government is pouring money into the health service but too much of it is leaking out in higher pay and falling productivity

Get article background



WHITEHALL departments are not holding their breath over next month's government spending review. They know who's getting most of the money. The NHS, which has seen a real increase of a third in its budget over the past four years, will get a 7.4% increase each year for the next five years. So how well is it spending its cash?

More people are being recruited. Figures released this week showed that the NHS payroll had jumped by almost 50,000 between 2000 and 2001, swelling the numbers working for Europe's biggest employer to nearly 1.3m. The rise is not surprising since NHS staff are winning big pay increases. The latest group to do well are the 26,000 consultants.

On June 12th, the government agreed to a new contract that will increase consultants' starting salaries by 20%. This was not the only concession won by the king-pins of the NHS. When Alan Milburn, the health secretary, unveiled the NHS modernisation plan almost two years ago, it stipulated that the new contract would prevent newly qualified consultants from topping up their income with work in private practice for seven years. But that demand has been dropped in the new contract. In return, consultants will lose flexibility over how they choose to organise their work and must now agree job plans with hospital managers. But if any side can claim victory, the consultants can.

Lower down the ranks of the NHS, arguably the country's most hierarchical organisation, the 300,000 members represented by UNISON, Britain's largest healthcare union, won an above-inflation pay settlement last month that will, for example, boost the pay of most hospital cleaners this year by 6.5%. In a warning shot for next year's negotiations, Dave Prentis, UNISON's general secretary, has said that the consultants' new starting salary “raises the benchmark for NHS pay”. Elsewhere in the health service, GPs are currently voting on a new framework agreement that, if agreed, is also bound to push up their pay rates, now that the consultants have won a good deal for themselves.

All this suggests that higher pay will continue to mop up a lot of the extra resources being lavished on the NHS. Last year, for example, it absorbed two-fifths of the £5 billion increase in cash expenditure in England. Substantial increases in pay are probably essential in order to recruit more people of the right quality into the NHS. Even after the 20% increase, the starting salary next year of newly-qualified consultants—typically appointed in their early 30s after at least 15 years of training—will be £65,000 for a standard 40-hour week, rising to £78,000 if they work 48 hours, much less than they would get if they had gone to America or, say, into the City. But aside from the boost to morale and long-term recruitment, higher pay does not deliver measurable improvements in services.

As in any occupation, sustainable increases in pay should reflect higher productivity or improvements in the quality of work. But the latest evidence suggests that productivity is not rising but falling. According to the King's Fund, a health policy think-tank, there has been little increase in overall hospital activity in the past two years, measured by admissions, even though real spending on the NHS has been increasing by over 7% a year.

Measuring hospital output through admissions is open to the criticism that it gives equal weight to all treatments and procedures, even though some are more important and expensive than others. One way round this is to weight hospital activities by their costs and then to calculate an index of efficiency on the basis of the inputs that hospitals are also using. On this basis, Julian Le Grand, professor of social policy at the London School of Economics, has calculated that productivity has been falling at an accelerating rate since 1997.

Mr Le Grand accepts that this index is fairly crude; for example, it assumes that greater activity feeds through directly to better health outcomes. However, its results accord with those of a more general study conducted by the Office for National Statistics. This examined not just hospitals but GPs too. It found that real resources grew by 25% between 1995 and 2000, but that output had grown by only 15%. Again, the efficiency shortfall was concentrated in the final two years.

It is conceivable that the decline in productivity might be masking a welcome rise in quality. These days consultants are being asked not just to perform treatments but also to raise standards and be better supervisors of junior doctors, which should improve clinical outcomes in the long-run, points out Anthony Harrison of the King's Fund. But there are good grounds for believing that some of the fall in efficiency is real. Since hospitals do not face binding budget constraints and there is no clear link between pay and performance, there are few incentives for anyone in the NHS to boost efficiency. A receptionist in an outpatient clinic has no incentive to ensure that everyone attends the clinic. A recent report from the Audit Commission found that 10% of operating-theatre sessions are cancelled, leaving the facilities unused.

It is noticeable that the increase in productivity started with the introduction of the internal market at the start of the 1990s, which allowed GP fundholders to choose which hospital to send their patients (and therefore their money) to. It also seems more than a coincidence that the decline coincides with the Labour government's decision to get rid of fundholders. The government is now edging back towards the internal market, but it is not giving power back to individual GPs, which is what seems to have worked in the 1990s.

Some of the extra money will get through to patients eventually, especially as more doctors are recruited. But this will take time. Peter Hawker, who represented the consultants in negotiating the new contract, says that “the next four-to-five years will be difficult until a significant number of new doctors come on stream” and warns against “unrealistic expectations”. That timetable may be acceptable to doctors, but it is not much good to politicians facing re-election in 2005 or 2006.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Exams

Fool's gold

Jun 20th 2002
From The Economist print edition

A possible way out of the examinations labyrinth

IN THE spoof rock documentary “This is Spinal Tap”, the guitarist boasts that his sound system is special, because whereas the volume on others can only be turned up to ten, his goes up to eleven. “Why don't you just make ten louder?” asks the interviewer. The same sort of question might be asked about the government's elongations of the school exam system.

This year, the first crop of students will sit new A-level extension papers—soon to be superseded by a new A-level grade, of the kind that already confuses GCSE results. There are more exams, as well as more possible outcomes. English pupils are probably more tested than any others, enduring external exams at ages seven, 11, 14, 16, 17 and 18. The latest addition to this sequence—the revamped AS levels that were first taken last year—were supposed to entice more waverers into staying in school, and help prevent pupils emerging from the (by international standards) unusually narrow sixth-form curriculum as either innumerate aesthetes or illiterate number-crunchers. What they mainly seem to have done is traumatise pupils and teachers and over-burden examiners.

One solution to the problems of over-specialisation and attritional exams, and to the widespread suspicion that standards are declining—a suspicion the government denies, but that its own reforms help to foster—could be the International Baccalaureate (IB). Like their counterparts in 107 other countries, a small but growing number of schools in Britain (44 at the last count) offer the IB diploma to their sixth-formers, alongside or instead of A-levels. Pupils are obliged to study six subjects, and, unlike A- and AS-level students, they can't dodge maths, English or a foreign language. They also submit an extended essay, do some community work and study the distinctly continental-sounding “theory of knowledge”.

Given the costs of adopting a new system, it is no surprise that many of the schools offering the IB are fee-paying. Tony Evans, head of King's College school, Wimbledon, an independent day school in London, predicts that all the school's sixth-formers will fairly soon be taking it. The new AS-levels, Mr Evans says, have meant more exams (“we're examining to extinction”), less teaching and, unlike the International Baccalaureate, no additional breadth. As an incidental benefit, the IB is also regarded favourably by top universities, who are increasingly struggling to discriminate between a super-abundance of (on paper, at least) well-qualified students. John Guyatt, head of Sevenoaks school in Kent, which is even closer to total switch-over, says that many universities prefer the IB's more nuanced, points-based grading system.

If enough of the posh schools follow suit, aspirational ones in the state sector will be obliged to emulate them. Some less pukka institutions have already done so. The George Dixon International School is in a deprived part of Birmingham, educates lots of immigrants and was until recently deemed to be failing. It has just been authorised to begin teaching the International Baccalaureate, which it will do alongside vocational courses. Sir Bob Dowling, the head—recently knighted for his alchemy with sink schools—says that in the current exam system, schools are spending “too much time weighing the pig and not enough fattening it”. He worries that the AS system, under which exams are taken after one year of the sixth form, risks demoralising struggling students.

Still, a widespread migration to the IB could be problematic. Alan Smithers, professor of education at the University of Liverpool, says it may be too demanding for ordinary pupils and schools. It would be hard to reconcile with the sort of parity between vocational and academic qualifications the government wants to engineer to retain potential drop-outs. And one of its chief attractions for schools and universities—freedom from political interference and distortion—is unlikely to recommend it to ministers.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Economist.com WORLD BRITAIN
PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

Bagehot

The hardest word?

Jun 20th 2002
From The Economist print edition

David Blunkett understands the benefits of saying sorry. But there are dangers, too

NO QUALITY is more admired among the political classes than that of having “a safe pair of hands”. And no department of state demands more of its senior minister in that respect than the Home Office, a place where if it can go wrong, it almost certainly will. Just occasionally a home secretary, such as the liberalising Roy Jenkins in the 1960s, will succeed in putting his stamp on legislation that both endures and benefits society. But that is not really what home secretaries are for.

Whereas success for other ministers is measured in positives—better educated children, easier journeys to work or shorter waiting lists for operations—the job of home secretaries is to stop things: to stop crime from getting (or appearing to be) out of control; to stop the prisons from exploding; to stop the creaking administration of justice from collapsing; to stop too many poor foreigners coming to live in Britain; to stop drugs from flooding the streets. And so on. Although almost everyone realises that these are inherently intractable problems, at best managed rather than solved, home secretaries are forced by political convention to pretend that they are “tackling” them. That makes home secretaries, even more than anyone else in government, vulnerable to things happening for which they are nominally responsible but over which they have no control.

Which brings us to the present incumbent, David Blunkett. By most estimations, after the prime minister and the chancellor, Mr Blunkett, having delivered through grit and pragmatism some desperately-needed results as education secretary, is the most powerful and effective member of the government. That fact persuaded both Tony Blair and Gordon Brown that the Home Office was just the place for Mr Blunkett—Mr Blair in the expectation that a populist toughie would be running Whitehall's trickiest and most accident-prone department; Mr Brown in the hope that a potential rival would be diminished by the impossibility of the job. Thus far, it is not clear whether it is Mr Blair or the chancellor who will be vindicated.

This week provided a good example of why opinion about Mr Blunkett's performance is mixed. The home secretary did something highly unusual for a senior politician. He admitted he was wrong. Critics of Home Office plans to sanction a dramatic extension of government access to private communications records—mainly civil liberties campaigners and Mr Blunkett's own son, who works in the computer industry—had won the argument, Mr Blunkett concluded. Not only did he withdraw the proposed legislation (which would have allowed any number of government organisations, from the food standards agency to local authorities, the right, previously given only to the police and the security services, to intercept e-mail and mobile phone logs); he also apologised. What's more, he did so in the most straightforward and uncompromising way, saying he understood and even shared public sensitivities that the government was not striking the right balance between individual liberty and enforcement of the law. To that end, he was “prepared to take abuse about climb-downs rather than get on the wrong side of the British public.”

Saying sorry is rare enough in politics for the effect to be extraordinarily disarming. With enthusiasm at last waning for “lying-in-state-gate”—a silly row over some gossipy newspaper allegations to the effect that Downing Street had angled for the incorrigibly thespian Mr Blair to be given an inappropriately prominent role at the Queen Mother's funeral—a storm of press outrage over the “snooper's charter” was about to break over the home secretary's head. It would certainly have been no more than he deserved. Yet the day after Mr Blunkett's retreat, the *Daily Mail* tucked the story away on page 18, while the *Times* gave it three paragraphs in a news-in-brief column.

This is not the first time he has resorted to apology as the means of getting out of a scrape. He did it only last month when making a speech to the Police Federation, a trade union that has a tradition of

roughing up home secretaries and which has been campaigning aggressively against Mr Blunkett's attempts to get rid of some of its lucrative overtime scams and introduce much-needed new working practices. Mr Blunkett told his audience that, frankly, he had been wrong in trying to drive through important reforms too quickly and, rather than pick a fight, he wanted to make a fresh start in building trust. The coppers were so stunned that their carefully planned heckles died in their throats. The Home Office claims that although it is as determined as ever not to dilute any of the main measures in the police reform bill, the atmosphere in which talks are continuing is now much less hostile.

Use only in small quantities

Mr Blunkett, as he surveys his sprawling and ungovernable department, could be forgiven for thinking that he has found a new all-purpose way of dealing with the worst it can throw at him. Sloppily drafted, illiberal or just unworkable legislation (as in the anti-terror and criminal justice bills)? I really must apologise—how could I have been so careless. Record levels of street violence? It's quite awful—I blame myself. Collapse of policy on asylum-seekers? We did our best but it wasn't good enough—I'm just so sorry.

For the moment there is something almost exhilarating about the home secretary's willingness to admit his mistakes (unfortunately, there have been quite a few of them). And with his plain speaking and gruff charm, there is something about the way Mr Blunkett apologises that is peculiarly deflating of his critics. But apology, like anything else, declines in value if overused, becoming just a device to mitigate the consequences of incompetence. Despite the limitless opportunities provided by the Home Office, Mr Blunkett should resist the temptation to become a serial apologiser.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Economist.com
SCIENCE
TECHNOLOGY QUARTERLY
PRINTABLE PAGE VIEW SPONSORED BY

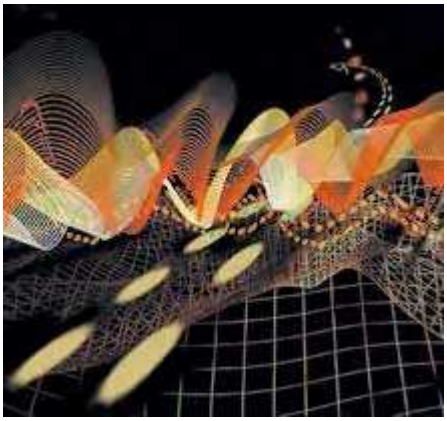
About sponsorship

OPINION

Picking winners

Jun 20th 2002
From The Economist print edition

Your suggestions, please, for recent innovations that are changing the world



THE misconception lingers. To many, innovation fizzled when the twin information bubbles—dotcom and telecom—burst a couple of years ago. Certainly, much of the hot money that inflated many a get-rich-quick venture on the Internet has evaporated. And the tech-heavy Nasdaq stockmarket index has fallen more than 60% from its peak in 2000—and, in reality, ought to be even lower. Meanwhile, the amount of venture capital being raised for bringing new innovations to market has retreated to where it was three years ago. But what has ceased is the short-termism that characterised the late 1990s, not the pace of technological innovation. If anything, real innovation has picked up speed.

There are several reasons why the misconception continues. First, too many people are simply looking in the wrong place. They see technology largely in terms of moving electrons and photons around—in much the same way that a previous generation viewed technology mainly in terms of tinkering with the molecular structure of alloys and chemicals. Though they will be around for years to come, the electron- and photon-based industries are now sophisticated and mature, and hardly the place these days to go looking for the rapid growth of youth.

A second, more prosaic reason why technology is seen as stagnating is that a lot of investors simply refuse to admit that the heady days of the information-technology (IT) boom have gone, and still believe the good times will somehow return. Dismal profits aside, how else do you explain why prices of IT companies listed on Nasdaq are typically 40 times prospective earnings—ie, twice the average price-earnings ratio of the benchmark S&P 500 index? A lot of wishful thinking seems priced into such multiples. Apparently, many investors are willing to put up with information technology's present 2% annual growth in the hope that lightpipes, softswitches and all the other paraphernalia of mainstream IT will one day come roaring back.

They would be better off looking elsewhere. Technological innovation is surging in such fields as genomics, neuro-silicates, nanotechnology and, above all, bio-informatics. The fastest growing market for powerful computers these days is not in engineering design or physics but biotechnology. And while the pharmaceutical industry is expanding at a healthy 7.5% rate, biotech is galloping ahead at twice that clip. Only 30-odd biotech drugs are on the market today, but no fewer than 700 are in the pipeline. The biopharmaceutical revolution has barely begun.

Meanwhile, between them, private companies, government agencies and venture-capital firms around the world will pour $4 billion into nanotech innovations this year. The National Science Foundation in Washington, DC, expects the nanotech market to be worth $1 trillion in little over a decade. The difference this time is that much of this new innovation is not happening in Silicon Valley, but is scattered around the globe.

Virtuous cycle

More intriguing still, the very nature of innovation is changing. The main reason is that capital expenditure—and what it buys—is itself changing dramatically. Once, the equipment it bought was so specialised to the task of making one particular model (eg, a motor car or memory chip) that the factory

had in effect to be bulldozed and rebuilt when a replacement was introduced. Increasingly, such specialised “hard tooling” is giving way to reprogrammable “soft assembly” lines. In short, companies do not have to spend anything like the sums they used to do to get comparable, or even greater, increases in output. In an increasingly competitive world, much of the extra profit released in the process then flows directly into innovation and new product development. Thanks to “soft capital”, this virtuous cycle is taking hold throughout technology.

On September 18th, *The Economist* will launch its own Innovation Awards scheme with a ceremony in San Francisco to announce the winners in each of five categories—bioscience, communications, computing, energy and environment, and nanotechnology. Innovations will be selected on the basis of their contribution to the candidates' own organisation as well as to the field itself. Emphasis will be given to innovations that have taken place over the past decade, and the more recent the better. Readers are invited to submit names of candidates for our panel of independent judges to review. Suggestions should be made online at www.economist.com/forums/tq.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

MONITOR

Instant messaging joins the firm

Jun 20th 2002
From The Economist print edition

With the immediacy of the telephone and the written record of e-mail, instant messaging is no longer just a handy way of chatting online. It is fast becoming a secure and flexible tool for business

SINCE its modest beginnings in the early 1970s, the Internet has always supported some form of “instant messaging” to offer online users a virtual face-to-face meeting. On the earliest university networks, Unix buffs could “ping” colleagues at UCLA, MIT or a dozen other colleges, then initiate a “chat” session once they knew their colleagues were online. By the early 1990s, Internet service providers (ISPs) such as Prodigy, CompuServe and America Online (AOL) released basic point-and-click “applets” as an easy way to use their proprietary instant-messaging networks.

Then, in 1996, ICQ (“I Seek You”) arrived. Created by four Israeli programmers, ICQ was a free instant-messaging client that let anybody with Internet access converse in real-time, regardless of their ISP. Put simply, an AOL“newbie” could then correspond with a CompuServe veteran or, for that matter, anybody with any Internet connection. Thanks to ICQ, AOL and others, instant messaging penetrated home and office computing swiftly. But until recently, it served mainly as a tool for trading flirtatious banter, swapping gossip or scheduling sundowners.

Now, a handful of firms—several start-ups and a few industry stalwarts—are transforming instant messaging into a legitimate and valuable commercial business. There are now instant-messaging encryption algorithms for ensuring the safety and confidentiality of communiqués between financial institutions. There are things called “trusted partners”, which guarantee that the person sending an instant message is, indeed, the doctor, lawyer or stockbroker he or she claims to be. Firewalls have been developed to protect instant-messaging networks from hackers, and dedicated servers keep a running record of all chit-chat in case the auditors come knocking. There is even software that permits instant messengers to share graphics, photos and documents.

Companies have begun to take these new features seriously. According to IDC, a technology research firm in Framingham, Massachusetts, businesses will spend $133m on instant-messaging applications this year and more than $1billion by 2005. And whereas today only 30% of firms officially sanction some form of instant messaging on their networks, analysts expect corporate adoption to skyrocket in the year ahead.

One of the first to benefit is expected to be Lotus Sametime, an instant-messaging add-on for firms that already license Lotus Notes and its related networking software. Lotus Development, a business unit of IBM, is positioned to reap handsome profits as corporate-wide instant messaging takes hold. A survey from Osterman Research of Black Diamond, Washington, found that when making the switch from free

instant-messaging networks—such as those of Microsoft or Yahoo!—to an encrypted and secure "enterprise" product, two out of three companies choose Lotus Sametime.

But Lotus's entrenched position does not worry Leo Schlinkert, boss of Communicator Inc in White Plains, New York, which focuses almost exclusively on providing 128-bit encrypted instant-messaging services for financial institutions. He points out that Lotus users are not necessarily contained within corporate firewalls. And when it comes to discussing details of, say, confidential share portfolios, that is not good enough. Mr Schlinkert, who formed Communicator in 1999 as a spin-off from Salomon Smith Barney, a stockbroking firm, believes that instant messaging is indispensable to brokers, traders, and their clients. But it has to be more reliable and secure.

Although it is not (yet) legal to place buy and sell orders over instant messaging, Communicator's software lets financial professionals discuss sensitive information between two or more banking institutions or even one-to-one with individual clients. The company's Hub Instant Messaging protocol—based on an agreed set of rules put forth by the financial institutions it serves—creates what Mr Schlinkert equates to a "gated community". First, there are no aliases, such as Phillygal29 or JamboNYC: everybody must log on with real names and passwords that have been assigned by an authorised system administrator.

Second, users can access the network only from designated computers. So, when a note pops open on a person's computer screen from Henry Paulson at Goldman Sachs, there is no doubting the fact that the investment bank's chief executive is on the other end waiting for a reply. And third, all dialogue is recorded and contained within corporate firewalls that encompass several institutions. Thus, if a broker at Morgan Stanley criticises a cohort at Lehman Brothers, their exchange cannot be seen by anybody outside the fixed user group but is still kept on record.

Developers at FaceTime Communications in Foster City, California, are out to carve a different niche in the corporate instant-messaging market. Rather than forcing employees to scrap their favourite messaging software from Yahoo!, AOL, or Microsoft, FaceTime presents an "overlay application" that acts as an intermediary, passing messages between any number of proprietary networks. It does not matter which type of messaging application is being used, because FaceTime's software is "network independent", explains Mehdi Maghsoodnia, who founded the company in 1997.

Mr Maghsoodnia compares instant messaging with the telephone: it should not matter what type of device one is calling from, but rather whether a caller is who he or she claims to be, and if the conversation is secure from eavesdroppers. Besides, he adds, with so many competing instant-messaging protocols now in use, it would be fruitless to attempt to unify all the rival networks. Ultimately, FaceTime enhances rather than displaces the dominant instant-messaging software. This is helping Mr Maghsoodnia to forge valuable partnerships with Microsoft and AOL, which will eventually add data-encryption, content-security and trusted-partner features to their own messaging software.

If ordinary two-dimensional text messaging in real-time is not enough, then Cincro Communications, a company based in Falls Church, Virginia, that began with a contract from DARPA (Defence Advanced Research Projects Agency), might be the answer. In 1996, John Ko, Cincro's founder and chief executive, was designing "fly-through" visualisation software for the Pentagon. His program let spooks convert digital satellite images into 3-D imagery and then share snapshots in real-time with operatives around the world. He realised, however, that the technology—which military reconnaissance experts are using in the hunt for Osama bin Laden—could be used collaboratively to view images, documents and even audio or video files over the Internet.

Today, his idea is the force driving Cincro's six-member programming team. With $500,000 of their own capital and $1.5m in government research grants and licensing fees, Mr Ko and his crew are developing Zanvas (zoomable canvas), an instant-messaging program that uses text as just one aspect of the real-time experience. An architect vetting last-minute changes can call up blueprints into the Zanvas window and visibly underscore various components, while the client scrutinises the revisions from a personal computer located elsewhere on the Internet. Thanks to its Java-based software, only the sender need activate Zanvas; recipients can join in using a standard web browser.

Mr Ko thinks that ISPs, such as Earthlink or AOL, represent a handy market for his fledgling firm. The leading ISPs have tens of millions of instant-messaging devotees. Many, he hopes, will pay a little extra to add Zanvas's virtual whiteboard and collaborative 3-D workspace to their instant-messaging software. One problem is that slick colour images and CD-quality sound on the company's instant-messaging service could provoke even steamier gossip around the coffee pot.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Economist.com PRINT EDITION TECHNOLOGY QUARTERLY
PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

MONITOR

Solar cells go organic

Jun 20th 2002
From The Economist print edition

Although they are not particularly efficient, plastic solar cells that are flexible enough to be sprayed on roofs or printed on clothes look like being remarkably cheap

EVERY minute, the sun showers the earth with more energy than the world's entire population consumes in a year. Unfortunately, it is expensive to convert all that sunshine into electricity. Most solar cells are made of inorganic silicon and, like computer chips, require laborious manufacturing processes that involve costly clean rooms and vacuum chambers. As a result, solar energy costs roughly three to four times as much as electricity from conventional sources. The good news is that recent advances in plastics and nanotechnology are speeding up the development of cheap, flexible cells that can be sprayed on walls or even printed on paper and fabrics.

A solar cell is made of semiconductive film sandwiched between two electrodes. When light strikes the semiconductor, electrons in the vicinity become excited enough to dislodge themselves from their surroundings and leave “holes” behind. A built-in electric field between the two electrodes coaxes the electrons (which carry a negative charge) and the holes (with a positive charge) to move to opposite ends of the cell—a relatively easy process in inorganic semiconductors such as silicon.

In plastics, however, the force that binds an electron to a hole is nearly 100 times stronger. Moreover, organic materials often have structural “traps”, like roadblocks on a highway, that impair the electron's mobility. Another drawback is that organic materials such as plastic absorb less light from the solar spectrum. So far, plastic cells have achieved efficiencies of only 2.5%, against 10% for standard inorganic solar panels and 30% in the most expensive modules. But because polymers can be manufactured cheaply in a solution at room temperature, researchers at the University of Arizona in Tucson, who have been experimenting with printing cells on paper or plastic via inkjets, think all the fuss is worth it.

Instead of going wholly organic, another team at the University of California at Berkeley has recently created solar cells made of inorganic nanorods, seven nanometres (billionths of a metre) in diameter and 60 nanometres long, embedded in a film of polymers. The idea is to try to combine the flexibility of plastics with the proven efficiencies of inorganic semiconductors.

Because the rods are so tiny (ie, 10,000 times thinner than hair), they take advantage of phenomena that work at the quantum level where the absorption of certain colours of light increases by a factor of two. There are other benefits of scaling down—the amount of costly inorganic semiconductive material is reduced. As a result, there is no need to use clean rooms. Similar to pure organic cells, these hybrids are easily manufactured cheaply in a beaker.

These new solar cells are not without their problems. To be commercially viable, their efficiency still needs to be doubled or tripled from present levels. Nevertheless, both research teams are convinced they can make the leap within the next few years. Alan Heeger, who shared a Nobel prize for the discovery of electrically conductive plastics, agrees. “Ten per cent [efficiency] is possible,” he says.

Several companies have shown interest in commercialising the prototypes. If plastic solar cells take off, as Berkeley's Janke Dittmer envisages, they could even end up being used in “smart clothes” that recharge your MP3 player, palm device or mobile phone as you walk around. In a few years' time, sunbathing might then take on a whole new meaning.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Economist.com
PRINT EDITION
TECHNOLOGY QUARTERLY
PRINTABLE PAGE VIEW SPONSORED BY

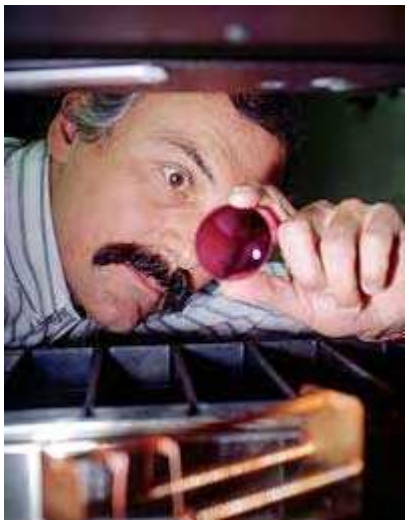
About sponsorship

MONITOR

Nature's way of plating

Jun 20th 2002
From The Economist print edition

Some obscure thin-film chemistry from the 1960s is making a comeback as a way of putting pure coats of practically anything on to anything



Laying it on—electrostatically

TAKE a piece of metal and two buckets of liquid, each containing a solution of charged particles. Wash the metal in purified water, which gives its surface a negative charge. Then dunk the metal in one of the buckets, allowing positively charged ions in the solution to adhere to the metal in a thin layer. Wash the metal a second time to remove any impurities and then plunge it into the second bucket. This time, the negative ions in the second bucket's solution stick to the first bucket's layer of positive ions. Repeat again and again, until the metal builds up a coating of thin, sandwiched layers of film.

This recipe for making thin films was first described in the late 1960s by Ralph Iler of DuPont. Unfortunately, after publishing his paper on the topic, Dr Iler died, and the procedure fell into obscurity. In the 1990s, the idea—by then known as colloidal (or electrostatic) self-assembly—was investigated by chemists in Germany, America and Japan. But each group focused on the idea's theory rather than its practice. Only in the past few years have Rick Claus and his team at the Virginia Polytechnic Institute in Blacksburg studied commercial uses for the process. What they have found holds a number of intriguing possibilities.

One of the first things that Dr Claus and his team have established is that thin films of metal deposited by electrostatic self-assembly possess the same degree of electrical conductivity as bulk metals. That is important because thin films created by other methods do not. Dr Claus believes that this is probably because thin metal films produced by other methods are more likely to harbour impurities. Such impurities find it impossible to gain a foothold within the Velcro-like lattices typical of electrostatic self-assembly.

Other methods of depositing thin layers of material on objects may be more familiar, but most have limits to their usefulness. For instance, electroplating can be used to coat a thin layer of gold on to a cheap piece of material. But only metals—not polymers, ceramics or proteins—can be coated in this way.

Alternatively, various materials can be coated on objects using “vapour deposition”: placing the target object in a sealed vacuum chamber along with a small bath of the material to be deposited. When heated to a high temperature, the bath gives off a mist of atoms that fall on to the surface of the object. The problem with vacuum deposition is that only the tops of objects get coated, not their bottoms. It is particularly hard to coat spheres or objects covered with textured surfaces this way.

Electrostatic self-assembly, however, coats every exposed surface of an object, and does it at room temperature. Moreover, it can be used not only on metals such as gold, silver, copper and aluminium, but also on oxides, polymers, ceramics, proteins and even “buckyballs” (an exotic form of carbon). Any substance that takes on a charge when put into a solution is fair game, says Dr Claus. Even human bone can be coated with calcium in this way. After all, nature uses a similar process to make bones in the body.

The Virginia Tech group envisages a variety of applications for electrostatic self-assembly. Magnetic materials used in mobile phones and other devices could be manufactured with fewer imperfections, thus

improving performance. Spectacles could be coated more effectively with scratch-resistant chemicals, simply by dunking them in the appropriate solution. Plastic tubing used in medical equipment could be coated with thin layers of bio-friendly proteins. Certain materials that can be made to adhere to surfaces in regular lattices could be used to maximise the reflective properties of road signs at night.

Under a defence contract, Dr Claus's laboratory is testing a photovoltaic cell constructed from films of polymer and ceramic which feels as flexible and hardy as cloth. The idea is to attach a patch of the stuff to tents, so soldiers in the field have a built-in power source.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

MONITOR

Making the connection

Jun 20th 2002
From The Economist print edition

As the voltage used in modern chips falls and the power they consume soars, getting large currents on and off devices is becoming a headache

FROM an engineering point of view, a computer chip is a device for turning electrical energy into heat—processing electrical signals on the way. The faster a computer chip runs and the more transistors it has, the more heat it produces. By 2015 or so, the average silicon chip will consume about 150 watts of electrical power, turning this into heat—a thought which is already taxing the minds of some engineers. The problem is not only how to get rid of the heat, but how to cope with the very large electrical currents that must flow on and off the chip without melting the connecting leads.

The fact is that, with a 0.5 volt power source—which is what future generations of chips will have to make do with—some 300 amps of current will have to be supplied to the chip. This will have to be done through a large array of connection leads, so that each carries only a small part of the total current. These leads will have to be sufficiently short to transmit very high frequency signals, which tend to radiate away as microwaves if the lead is too long (by 2015, chips will work high in the gigahertz band). The leads also need to be flexible enough to deal with the large thermal expansion of the chip relative to the plastic on which it is mounted—yet another engineering headache. Add to this the need for an extremely cheap solution, and some lateral thinking is necessary.

Just such an inspired solution is now being developed by Jim Meindl and his team at the Georgia Institute of Technology in Atlanta. Whereas today's technology typically involves connecting leads one by one to an individual chip, Dr Meindl's approach, which he has dubbed “Sea of Leads”, is based on applying wafer-scale fabrication technology to make a dense array of tens of thousands of flexible leads per square centimetre.

The leads are marked out over the whole surface of a plastic wafer all at once using conventional photolithography, which makes it easy to fabricate microscopic, highly regular wires. The trick for making the wires flexible is, first, to print pads in a plastic that can easily be melted away. Then, a layer of another chemically resistant plastic is put on top. Next, copper wires are printed photolithographically on top of the second plastic layer. Finally, the underlying pads are dissolved by the application of heat, so that the copper is, in effect, sitting on a microscopic air cushion. Complicated as all this may sound, it becomes very cheap when processing wafers of hundreds of chips at a time.

Since the Sea of Leads can be fabricated over an entire wafer, this wafer can be placed directly on another wafer with silicon chips on it, and the combined sandwich can be used to test individual circuit performance before the wafers are diced into chips. This makes both the connection and the test phases less laborious, and so further reduces the cost.

But the real beauty of Sea of Leads is that it changes some of the basic assumptions about packaging silicon chips so radically that it can truly be called a disruptive technology. Perhaps the most important disruption is that the cost of leads in such a batch process suddenly becomes independent of their number. Lifting the limit on the number of input and output leads—especially in complicated “system-on-chip” devices used in mobile phones and other portable gadgets—opens new vistas for designers. The result should be no end of improvement in the consumer products that depend on such devices.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Economist.com PRINT EDITION TECHNOLOGY QUARTERLY
PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

MONITOR

Quantum leap for medicine

Jun 20th 2002
From The Economist print edition

Quantum effects used in devices called SQUIDs are providing a powerful new tool for diagnosing ailments from the faint magnetic signatures they create

PHYSICISTS and physicians used to do quite different things. Physicists dealt with esoteric formulae and equations; physicians poked and listened to the wheezes of sick people. Today, however, medics must be physicists as well, to understand the workings of medical devices such as magnetic resonance imaging (MRI) machines, which rely on manipulations of individual hydrogen atoms to produce images of the body. Now, a new breed of diagnostic instrument that relies on superconductivity and quantum mechanics is being added to the doctor's bag.

The new high-tech medical tool, which goes by the name of “superconducting quantum interference device” (SQUID), relies on loops of superconducting wire chilled to the temperature of liquid nitrogen (-196°C) or liquid helium (-270°C). In the ordinary world, a current in such a loop can flow in only one direction at once, either clockwise or anti-clockwise. But in the world of quantum mechanics, current can flow in both directions simultaneously. This makes the SQUID sensitive to extremely weak magnetic fields, as small as those produced by the body—ie, a millionth to a billionth of the strength of the earth's own magnetic field.

While physicists have been using SQUIDs for some time to perform laboratory experiments, doctors have only just begun to get their hands on them. From what they have seen, they are keen for more. That is because, just as heart attacks or epilepsy carry electrical signatures, other ailments have magnetic fingerprints. But until the advent of the SQUID, it was impossible to detect minute magnetic signals that can provide clues to a patient's complaint.

The first patients to benefit from medical SQUIDs were those suffering from haemochromotosis, an ailment caused by excess iron in the blood. The extra iron accumulates in the liver, and can reach such a toxic level that it causes a heart attack or permanent liver damage. The best way to diagnose this disorder now is to extract a bit of tissue from the liver and check it for excess iron—a procedure that is both painful and potentially dangerous. Another way is painstakingly to analyse a large volume of the patient's blood. A SQUID-based sensor can provide a rapid and non-invasive (ie, painless) alternative to both methods.

Tristan Technologies of San Diego, California, was the first to build prototypes of SQUID-based liver sensors. More than 1,000 patients have already had the concentration of iron in their livers measured by Tristan machines in Italy and Germany. Tristan is now seeking approval to market the device in America.

Meanwhile, engineers at Hitachi in Japan have developed a device that uses SQUIDs to detect fluctuations in the magnetic fields produced by the heart. A heartbeat is produced by electrical current generated by differences in the concentration of various ions. As with all currents, there is an associated magnetic field. Hitachi's “magnetocardiogram” detects this minute magnetic signal and uses it to generate an image of the corresponding electrical waveform.

The Hitachi prototype gathers 64 channels of data and can monitor the heart, one beat at a time. Because of its sensitivity, the new magnetocardiogram is expected to help doctors make faster diagnoses of dangerous conditions such as arrhythmia and ischemic heart disease. It could also help obstetricians to monitor the beating hearts of fetuses in the mother's womb.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Economist.com PRINT EDITION TECHNOLOGY QUARTERLY
PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

MONITOR

More power to the thumb

Jun 20th 2002
From The Economist print edition

There has to be a better way of typing text messages on cell phones. There is, but mobile operators are reluctant to introduce it

TYPING text on the keypad of a mobile phone is a fiddly business, as many Europeans and Asians—who, unlike Americans, are keen text-messagers—will attest. Most modern phones offer two modes of input. The simplest, multitap, involves pressing the “2” button, which corresponds to the letters “ABC”, once for “A”, twice for “B”, and so on. This is a laborious process, and has spurred time-strapped texters to devise cryptic abbreviations such as “c u l8r” for “see you later”.

It also prompted the development of T9, a “predictive text” technology that makes typing common words much easier. (T9 was developed by Tegic, a small company that was acquired by America Online in 1999.) To type the word “good”, you simply key in 4663, since “G” appears on the “4” key, and so on. But because the same combination also corresponds to the words “home”, “gone”, “hood” and others, T9 involves a special key to allow the user to step through the alternatives in its dictionary.

All very clever, but it is such a fiddle that surveys suggest only about half of people with T9 on their phones actually use it. T9 has other problems, too. Its dictionary is stuffed with business words and, oddly, names of Nokia executives, but no swear words, though these can be added. Abbreviations such as “can't” and “won't” are difficult to type.

Eatoni Ergonomics, a small company based in New York, has developed a rival predictive-text technology called LetterWise which, it claims, is far superior to T9. Unlike T9, it is not based on a dictionary, but on a series of tiny rules that enable it to predict, given what has already been typed, which letter the user is most likely to want next. For example, “Q” is most often followed by “U”. Of the three letters “MNO”, words most commonly start with “O”. The letters “ST” are most often followed by a vowel. And so on. Like T9, LetterWise has a special key, used to step through possible letters when it guesses wrong.

It may not sound like a great leap forward, but it works well. Unlike T9, LetterWise can be used to type proper names, addresses and Internet locations. It is simple to learn, and speeds of 38 words per minute (wpm) are possible, compared with 23 wpm for T9 and 20 wpm for multitap, says Howard Gutowitz, Eatoni's boss.

LetterWise has benefits for phone makers as well as users. Being based on rules, not a dictionary, it occupies only three kilobytes of memory; T9 needs as much as 100 kilobytes. Many phones contain dictionaries for up to 20 languages, so this saving can be multiplied several times over. For Asian languages, the savings are even greater. And since mobile phones typically have only 2,048 kilobytes of memory, this leaves more room for games and other features. LetterWise's small size also makes it feasible for use in short-range cordless phones, which typically have no more than 128 kilobytes of memory.

Yet despite all these advantages, LetterWise has failed to take off. Mobile-phone makers are reluctant to break ranks and defect from T9, says Mr Gutowitz. But he has a plan. LetterWise has been licensed to Philips, Siemens and Panasonic who, together, account for more than half the European market in cordless phones. Over the next few months, it will become possible to send text messages from fixed-line phones as well as mobile ones, and those phones will have LetterWise built in. Mr Gutowitz hopes this will enable the technology to reach a wide audience, and encourage mobile-phone makers to include it in their handsets, too. A deal with one mobile firm, he says, is already on the cards.

If LetterWise takes off, Mr Gutowitz has an even more impressive system, called WordWise, as a follow-

up. It requires a special “shift” key and has its own mapping of punctuation symbols on to the number keys, so it would require existing phones to be redesigned slightly. But it is even faster and easier than LetterWise. While LetterWise is cool, he says, WordWise “will eventually take over the world”. More power to his thumb.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Economist.com
PRINT EDITION
TECHNOLOGY QUARTERLY
PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

MONITOR

ARMs around the world

Jun 20th 2002
From The Economist print edition

One of the most ubiquitous microprocessor designs is also one of the least well-known—but not for much longer

THERE are probably more microprocessors hidden around the home today than most well-endowed universities had in their computer departments a decade or so ago. But unlike the general-purpose microprocessors used in personal computers, which can do anything asked of them by the software, these embedded household processors perform a small number of chores—sometimes even just one—extremely well. And among the most widespread of these embedded processors are those developed by ARM Ltd, a 12-year-old firm based in Cambridge, Britain. Better known by cognoscenti than consumers, the company does not make its own processors but licenses other semiconductor firms to make them, both for themselves and for third parties. All told, 70-odd manufacturers around the world use ARM's embedded-processor designs in their appliances.

Recently, however, the publicity-shy firm has found itself more in the limelight. A high-profile customer—Palm Computing, the company that put the personal digital assistant (PDA) into the hands of digerati everywhere—announced that it was swapping the processor that it had built its reputation on for ARM's more capable design. What is ARM's attraction?

For one thing, ARM has always struck a balance between high performance, low power consumption and small size. Unlike PC microprocessors that consume copious amounts of power, require active cooling and cost hundreds of dollars apiece, less is more when it comes to embedded processors. Each fractional dollar added to any device's cost multiplies (by as much as five times) the price the consumer pays. Also, the batteries used in portable devices can barely keep pace with the demands made upon them by today's power-hungry microprocessors. ARM's designs win on both counts.

No surprise that ARM's designs can now be found in three out of four mobile telephones, and are poised similarly to dominate the PDA market. Even Intel and Motorola, two behemoths of the microprocessor business, have bought licences from ARM. These are the only ones to acquire so-called “architecture licences”, which permit them to develop ARM-compatible chips of their own rather than simply adapting and manufacturing the British company's designs.

Motorola acquired its licence direct from ARM, but Intel obtained its licence via the acquisition of Digital Semiconductor, which made the first ARM-compatible chips without using any of ARM's intellectual property. Digital Semiconductor's chip family, StrongARM, is still produced by Intel and used in Compaq's highly successful iPAQ personal digital assistant.

Intel has continued along the path established by Digital Semiconductor and developed an entirely new family of ARM-compatible chips called XScale. Like StrongARM, XScale was developed from scratch. Such design work is a labour-intensive undertaking, but one that Intel believes will pay off by creating a broad family of XScale microprocessors.

By contrast, Motorola has—at least initially—taken a more conservative approach, integrating existing ARM-developed designs with technologies that it already had in house. Both Intel's and Motorola's efforts are intended for use within their own products as well as for sale to other manufacturers. Motorola, for example, is using ARM chips in its new mobile phones.

Apart from mobile phones and PDAs, ARM's designs are infiltrating all manner of other gadgets. In Japan, Sharp has used its ARM licence to supply chips for Nintendo's latest handheld player, Game Boy Advance. Apple's iPod digital music player contains at least three ARM processors, each performing specific

functions within the new gadget. Future PDAs that use Palm's operating system will have ARM chips at their core now that Palm has modified its software to work with the ARM processor. Until now, Palm OS devices have relied on Motorola processors, but have been losing out to the latest PDAs powered by ARM chips.

With the growing popularity of untethered devices, ARM's niche remains lucrative, despite the downturn that has affected all semiconductor firms. Not only has the Cambridge chip designer managed to create a large and loyal customer base, but many companies are busily working on ARM-based gadgets that have yet to be announced. Of the 70-odd ARM licensees—a list that includes Hewlett-Packard, IBM, Philips and Sony—only 30 have so far admitted to using the ubiquitous chip. Intel's advertising slogan “Intel Inside” and its four-note jingle may have seared an image in the public consciousness of the Pentium processor as the workhorse of the computing world. But not for much longer. The dark horse of microprocessing is coming out of the stable.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Economist.com
PRINT EDITION
TECHNOLOGY QUARTERLY
PRINTABLE PAGE VIEW SPONSORED BY

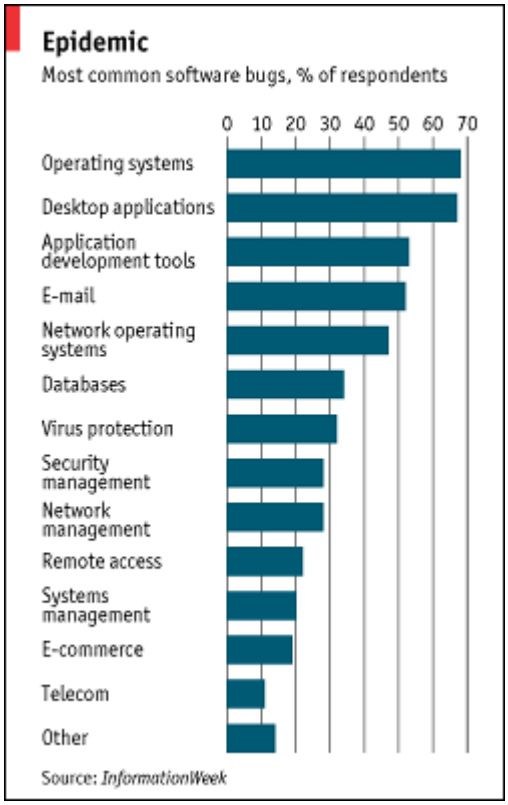
About sponsorship

DIALOGUE

Buggy whipped

Jun 20th 2002
From The Economist print edition

In our previous issue, we asked readers whether a "lemon law" was needed for software. Most agreed that commercial software was far too buggy, but that product-liability laws were not the answer



NO SURPRISE that the majority of readers who responded to the question posed in the March 16th issue of *TQ* about the poor quality of commercial software were people who developed the stuff. The real surprise was that, to a man and woman almost, they agreed. What few of them could agree upon, however, was what to do about it.

Users of commercial software were in a minority, despite the fact that programming flaws can cause serious security breaches in an organisation's computer network for malicious hackers to exploit. A recent survey by *InformationWeek* listed operating systems (eg, Windows, Macintosh or Unix) as the buggiest sort of software, with productivity applications (eg, Word or Excel) a close second (see chart). Downloading and installing the software "patches" for fixing security breaches each time a new bug is discovered costs the average organisation around $700 per PC and $900 per server. So even modest-sized firms can easily spend upwards of $1m every time a bug is found that threatens their security. And it is not as though such flaws are rare. In America, the Federal Bureau of Investigation found 63 new security holes in commercial software it tested during just a three-week period this spring.

In this article, we discuss various measures that organisations can take to protect themselves from intruders bent on exploiting software flaws. It would, of course, be better by far if the software itself were more rugged in the first place. Although most agreed that there was no such thing as bug-free program code, the consensus among readers who joined the online discussion on this topic was that few customers could afford really bug-free software.

The problem, as they saw it, was the complexity of modern software—especially operating systems and productivity suites. "Twenty, or even ten, years ago, software was actually reliable," one software developer admitted. That was because the cryptic operating systems on desktop computers at the time (CP/M and MS-DOS) were far smaller and more tightly coded than today's graphical beasts. The software written for bigger machines used to be more reliable, too. Before IBM was forced to "unbundle" its software, computer makers controlled both the program code and the hardware it ran on—and could thus integrate them properly. That was one of the reasons why IBM's mainframes and Digital Equipment's minicomputers had such a reputation for reliability.

Readers had no trouble identifying the two leading culprits. One was the practice of re-using chunks of old software for doing set things. "Over time, code-reuse leads to massively complex and prodigiously huge software programs, full of 'magic code' that nobody understands or wants to touch," said another programmer. Analysing such programs was more like archaeology than computer science. "They are full of 'midden piles' and 'rock strata' containing artefacts and fossils that once had a clear purpose but whose function is now lost to history."

Flurry of upgrades

The other reason for complexity was the way software companies, facing slower growth in sales to new users, have rushed to add extra features to their programs—even before their existing code base has stabilised—in a bid to generate revenue by getting existing customers to buy upgrades. So, instead of getting more reliable with each passing version, programs have become ever more bloated and unstable.

Clearly, lots of users value new features more than reliability, or they would not continue to buy upgrades. But where customers insist on reliability—as they do with, say, the “compilers” used for actually developing software—then the code tends to be remarkably robust. As compilers are no more expensive than many of the programs designed for the mass market, the argument that consumers could not afford better quality software would seem disingenuous.

What to do about it? A common theme among forum members was that revising the terms that software publishers enjoy under copyright law was preferable to extending product-liability laws to cover the software industry—as the National Academy of Sciences in Washington, DC, has proposed. As one software developer noted, “you can only have product liability when there is a well-defined product—and the computer industry is too immature for that.” Instead, he wanted copyright protection applied only to software that operates according to its published specification. That may be not as draconian as it sounds. “The current quality of software is so bad that we can set standards low and still get a great improvement.”

Even so, other forum members thought it was going a bit nuclear. “Besides,” noted another reader, “software companies would simply turn over the job of writing ‘specifications' to Nostradamus, and that of documenting bugs to retired Enron auditors.”

But what if software makers had to print a “health warning” on their products, guaranteeing that no more than a certain number of bugs would be found within a year of the product's release? That might make customers pause before buying such a buggy piece of software. If they did so nevertheless, and more than the guaranteed number of bugs were reported, those with a valid sales receipt would be eligible for a refund proportional to the number of additional bugs.

That may not be entirely workable, but it is an interesting suggestion. The encouraging thing about the “lemon law” discussion was that a lot of thoughtful people within the software industry are aware that the current state of affairs is bad for business and cannot continue. The surprising thing was not how few, but how many, were actively seeking to change things for the better.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

REPORTS

Watch this airspace

Jun 20th 2002
From The Economist print edition

Wireless telecoms: Four disruptive technologies are emerging that promise to render not only the next wave of so-called 3G wireless networks irrelevant, but possibly even their 4G successors

Get article background

IT IS more than a century since Guglielmo Marconi pioneered wireless data transmission. Yet, if the current pace of innovation in the field is anything to go by, wireless technology is still in its infancy. The surge in popularity of mobile phones—their number will overtake that of fixed phones during 2002—has prompted both established firms and start-ups to investigate ways to make phones more efficient and versatile. At the same time, the Internet is going wireless, driving a separate wave of innovation as the Internet's legendary ability to disrupt traditional ways of doing things enters a new arena.

It is too early to see where all this might be leading, or even how these two waves of wireless enthusiasm will fit together. But the parlous state of the wireless-telecoms industry, and the difficulties surrounding the deployment of “third generation” (3G) networks in particular, could be taken as evidence that existing ways of doing things are reaching their limits, and that some radical new ideas are needed.

Here, then, are four emerging technologies that show much promise: smart antennas, mesh networks, ad hoc architectures, and ultra-wideband transmission. Smart antennas are already in use and mesh networks are starting to appear, while ad hoc architectures and ultra-wideband are still largely restricted to the laboratory. But each challenges existing ways of doing things; each, on its own, or in combination with others, could shake up the wireless world.

Smart stuff

Wireless antennas, in their simplest form, are dumb. A base-station on a cellulartelephony network, for example, typically communicates with nearby handsets by broadcasting in all directions, which is rather like shouting to ensure that everyone in a small room can hear you. Base-stations use only a fraction of the radio spectrum available, to avoid interference with adjacent cells, but the use of directional antennas enables radio frequencies to be reused more efficiently, thus boosting capacity. So instead of one omni-directional antenna, many base-stations now use three-directional antennas pointing in different directions, each of which covers a 120° sector.

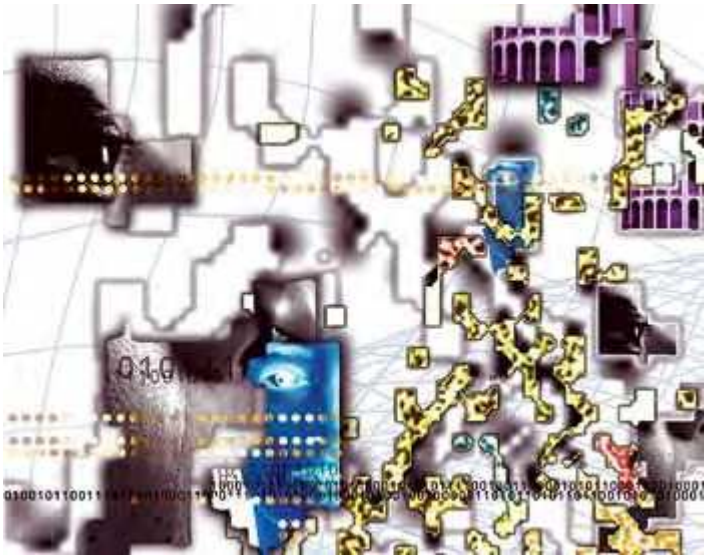
Smart antenna systems go a step further, using multiple antennas to provide more accurate directional targeting and additional improvements in efficiency. “The base-station works out where you are from the relative signal strengths at multiple antennae,” explains Marc Goldburg of ArrayComm, a smart-antenna firm based in San Jose, California. “Then it can direct its transmission.” ArrayComm's IntelliCell technology is now deployed in nearly 100,000 base-stations in Japan, China and Taiwan. Adding IntelliCell technology to a base-station typically boosts capacity by a factor of three to seven, says Mr Goldburg. Metawave, another smart-antenna firm that is based in Redmond, Washington, claims similar benefits for its SmartCell “cell sculpting” technology.

In theory, says François Chin, a researcher at the Institute for Communications Research in Singapore, the capacity enhancement is proportional to the number of antennas, but in practice it is only possible to achieve about three-quarters of this improvement. His systems, which are being tested in Tokyo by NTT DoCoMo, Japan's leading wireless operator, typically achieve a five-fold capacity improvement with eight antennas. It is thus possible to support either more users, or the same number of users at a higher data rate, or to reduce the number of base-stations needed to provide a particular level of service.

“Compared with 3G, Mark Goldburg of ArrayComm, a smart-antenna maker in San Diego, California, reckons its i-Burst is about 40 times more efficient.”

The plunging cost of processing power means that smart antennas, which started out as an expensive military technology, are now a cheaper way to increase network capacity than building new base-stations. Yet the response of big infrastructure suppliers such as Nokia, Ericsson, Lucent and Nortel has been lukewarm. Nokia says there is no need for smart-antenna technology, because the price of base-stations is also falling fast. Ericsson, Lucent and Nortel have their own versions of the technology, but are not pushing it to operators. Marty Cooper, ArrayComm's chief executive, who pioneered cellular telephony at Motorola, smells a rat. “Manufacturers determine what technologies are used—and they want to sell more base-stations,” he says.

But smart-antenna firms hope that the advent of 3G will work in their favour, since 3G networks will require far more base-stations than existing 2G networks, in order to provide extra capacity for graphics, video and other new services. The option to provide some of this extra capacity via smart antennas, rather than additional base-stations, ought to appeal to operators. “3G has driven the need for our technology to the surface,” says Dr Cooper. He hopes that operators will put pressure on infrastructure suppliers to offer base-stations with smart antennas, and expects the technology to be ubiquitous by 2010.



In the meantime, ArrayComm is pushing ahead with a technology of its own, called i-Burst. It claims that i-Burst offers far better performance than 3G networks at a fraction of the cost. Retro-fitting smart antennas on to cellular networks can go only so far, says Mr Goldburg, because cellular networks were not designed with smart antennas in mind. By contrast, i-Burst is a mobile wireless-data technology that was designed specifically to exploit smart antennas. Compared with 3G, Mr Goldburg reckons it is about 40 times more efficient.

The fact is that i-Burst base-stations—equipped with smart antennas and colocated with the base stations of a 2G network—can provide a throughput of one megabit (1m bits) per second, at about one-thirtieth

of the cost of building a 3G network for the same area. Thus, i-Burst plugs the gap between 3G networks (long-range, but capable of 384 kilobits per second) and the popular WI-FI wireless-network standard used to connect laptops to the Internet (short-range, and capable of 11 megabits per second). At the moment, the i-Burst receiver is a brick-like object about the size of a video cassette that fits on to the lid of a laptop, and draws about as much power as a WI-FIPC-card. But ArrayComm's licensees, including Kyocera, a Japanese electronics conglomerate, expect to be able to produce i-Burst receivers as PC-cards.

ArrayComm is pushing i-Burst in three separate ways. The company has bought spectrum in Australia and plans to launch a commercial service there in 2003. Hanaro Telecom of South Korea plans to launch i-Burst as a wireless broadband service this summer. ArrayComm is also trying to persuade firms that operate cellular-network towers on behalf of wireless operators to install i-Burst equipment. In short, Dr Cooper hopes that i-Burst will cut two technological Gordian knots at the same time, providing fast mobile-data access, and also a wireless solution to the “last mile” problem of providing high-speed broadband access to the home.

A relay race

Proponents of mesh networks also believe that they have found a way around the last-mile problem. At the moment, there are two main ways to provide broadband connections to the home: use either the local cable-TV network or a digital subscriber-line (DSL) from the local telephone company. DSL supercharges ordinary phone lines to enable them to carry data at high speed.

But not every neighbourhood has cable access, and DSL works only for subscribers close to a telephone exchange. Worse, the roll-out of broadband has been held back by obstructive telecoms incumbents, regulatory obstacles and infighting. No wonder the idea of a fixed wireless broadband service, blanketing a neighbourhood with connectivity without the need to lay any cables, seems so seductive.

The mesh-networking approach, which is being pursued by several firms, does this in a particularly clever way. First, the neighbourhood is “seeded” by the installation of a “neighbourhood access point” (NAP)—a radio base-station connected to the Internet via a high-speed connection. Homes and offices within range of this NAP install antennas of their own, enabling them to access the Internet at high speed.

Then comes the clever part. Each of those homes and offices can also act as a relay for other homes and offices beyond the range of the original NAP. As the mesh grows, each node communicates only with its neighbours, which pass Internet traffic back and forth from the NAP. It is thus possible to cover a large area quickly and cheaply.

For providing fixed-wireless access, the mesh approach is technically superior to the traditional “point-to-multipoint” radio approach in a number of ways. For one thing, it requires much less power. Rather than using high power to get around obstacles, mesh networks offer multiple paths from one node to another; with systems typically being self-configuring so that, like the Internet, traffic is sent by the quickest route. Also like the Internet, mesh networks are robust and can be scaled up easily.

Another drawback of point-to-multipoint systems, observes Dave Beyer of Nokia's wireless-routers division, is their need for tall antennas to get above the clutter and maximise their coverage. Unfortunately, they then run into the problem of interference with adjacent cells. Mesh networks, in contrast, can use rooftop antennas, since each node needs only to be able to communicate with its neighbours. Such systems use one-ten-thousandth of the transmission power. That, in turn, means they can use unlicensed spectrum.

A number of firms are now pushing mesh-network technology as the fastest and easiest way to provide broadband Internet access. Following a successful trial in Santa Rosa, California, Nokia's system, called RoofTop, is being rolled out by more than 50 operators, mainly small Internet service-providers (ISPs). The ISP installs an AirHead unit (Nokia's name for a NAP) to seed a neighbourhood, and a small, weatherproof pod with an omni-directional antenna is fixed to the outside of each subscriber's home or office. Each pod costs around $800—less if produced in large quantities. Vista Broadband, which offers a broadband service using RoofTop technology in Santa Rosa, charges around $200 for installation, and then a monthly fee of $50.

“SkyPilot's rooftop units use smart antennas to beam data back and forth, enabling frequencies to be reused more efficiently and

SkyPilot, a mesh-networks start-up based in Menlo Park, California, is taking a similar approach. Its rooftop units use smart antennas to beam data back and forth, enabling frequencies to be reused more efficiently and increasing capacity. Duncan Davidson, the firm's boss, says the Internet/mesh approach has many advantages over the traditional circuit-based approach used in telephony. “The Internet architecture gets better with density [whereas] the phone system gets worse,” he says.

increasing capacity.”

The problem with the mesh approach, however, is how to get it off the ground. Who will build the NAPs to seed a neighbourhood? Unlike Nokia, which simply sells its RoofTop gear to ISPs, SkyPilot plans to help prime the pump itself, by setting up NAPs and allowing ISPs to resell access. This approach also has technical merit: multiple overlapping mesh networks are far less efficient than a network in which all the nodes can talk to each other. So it makes sense to have competition at the ISP level, rather than the infrastructure level.

Perhaps the most ambitious vision of mesh networking is that of MeshNetworks, a firm based in Maitland, Florida. It has developed its own radio hardware and some clever routing software that makes it possible to blanket an area with broadband wireless coverage using “intelligent access points” (its term for NAPs) and shoebox-sized wireless routers. But what is really clever is that this wireless mesh-network then supports mobile devices, such as handheld computers and laptops. And those devices can also act as routers for other mobile devices, further extending the mesh. Cleverest of all, even when two or more devices are beyond the range of a NAP or a wireless router, they spontaneously form their own local network. MeshNetworks' technology thus combines the mesh architecture with the even more radical approach of “ad hoc” networking.

From the battlefield

As the name suggests, ad hoc networks consist of multiple devices, each of which also acts as a router for the others. Furthermore, these devices may also be moving, so that the network topology is in constant flux. This poses a number of challenges, not least in routing. Clearly, the quickest way to send a packet of data from one device to another changes as the devices move around, and other devices join and leave the network.

Ad hoc networks are commonly associated with military and emergency applications, both of which have to operate in situations where there is no network infrastructure. For that reason, ad hoc networks are sometimes referred to as “infrastructureless” network architectures. Rescue workers in an earthquake zone, for example, could use handheld radios, each of which also acts as a relay for other nearby radios. Similarly, the robust, self-healing properties of ad hoc networks make them suitable for military use, either by mobile combatants, or to connect up “smart dust” sensors that would be sprinkled across a battlefield from an aircraft.

For many years, says Zygmunt Haas, a researcher at Cornell University, most research into ad hoc networks focused on military applications. Recently, however, interest in the field has increased as its commercial possibilities have started to emerge. “Bluetooth”, a short-range wireless protocol that enables mobile phones to talk to nearby handheld computers, printers and other phones, is a simple form of ad hoc networking, though it supports only single “hops” between individual devices.

The advent of WI-FI networking equipment has also provided a foothold. With the right software, it is possible to allow WI-FI-equipped laptops to act as relays for other nearby machines, letting packets make multiple hops from machine to machine to get to and from the Internet. Dave Johnson, an ad hoc researcher at Rice University in Houston, Texas, has built demonstration systems based on WI-FI devices in moving cars that do exactly this.

Ad hoc networking might also expand the capabilities of mobile phones. People attending the “Burning Man” festival in the Nevada desert would then be able to call each other, even without any local infrastructure, suggests Charles Perkins, an ad hoc guru at Nokia's research centre in Mountain View, California. As well as working without any infrastructure, ad hoc-capable mobile phones would have other advantages. In a crowded environment, such as a sports arena, phones could pass traffic from other phones to base-stations in adjacent cells, thus boosting capacity. Calls between users within the arena could be handled locally, without loading the cellular network.

The ad hoc/cellular hybrid approach would also improve coverage at the edges of a cellular network, since users just outside the network's range would be

“Network

able to “hop” their calls into the network via somebody else's phone; in the process, they would extend the effective size of the network, allowing still more distant users to “multihop” their way in. No wonder Nokia and other mobile-infrastructure manufacturers are keeping a close eye on ad hoc networking.

operators will still be needed to carry long-haul traffic, but their role could become less (rather than more) important in the future.”

But there are still several problems to overcome. The first is a conflict of interest: do you really want somebody in another row of seats using your phone as a relay and draining your battery? The trade-off, says Dr Haas, is that the service quality improves for all, at the cost of handling each other's traffic. Some proposed ad hoc architectures, he says, include micro-payment schemes to ensure that everybody pulls their weight.

Another difficulty is agreeing on protocols; ad hoc will work only if devices are ubiquitous, and support an agreed standard. But different situations require different standards. This may require hybrid, adaptive protocols, where the network's behaviour adjusts depending on the circumstances.

The ad hoc approach is also favoured by proponents of ultra-wideband (UWB) transmission. UWB marks a radical departure from existing wireless technologies because, rather than transmitting and receiving on a particular radio frequency, it involves transmitting very short pulses on a wide range of frequencies simultaneously at low power. Such pulses, which are typically less than a billionth of a second long, pass unnoticed by conventional radio receivers, but can be detected by a UWB receiver. Information is encoded into streams of pulses, millions of which can be sent every second, by varying their polarity or their timing relative to an apparently random but pre-arranged schedule. (A slightly early pulse might signify a one, and a late pulse a zero.)

UWB has been struggling to establish itself for years. That is because its unconventional approach requires regulatory approval. But its fortunes received a massive boost in February 2002, when America's Federal Communications Commission (FCC) gave limited approval for UWB transmissions, despite the objections of air-traffic controllers and telecoms firms worried that they might interfere with their existing networks. Similar moves are expected to follow in Europe and Asia, says Jim Baker of Time Domain, a leading UWB firm based in Huntsville, Alabama.

The FCC ruling limits the range of UWB transmissions to about ten metres, although longer ranges may be allowed in future once the question of interference has been sorted out. However, UWB is capable of a data rate of at least 100 megabits per second over such distances. So the way is now clear for commercial UWB products to provide wireless links between, say, personal computers and camcorders or music-players. Work is well advanced on a standard to enable UWB devices and peripherals to locate and communicate with each other. Such is the interest in the technology that heavyweights such as Intel are now actively investigating it, in addition to UWB firms such as Time Domain, Pulse-Link and Xtreme Spectrum.

Cellonics, a Singapore-based firm, has an interesting twist on UWB. Inspired by the firing of nerve cells, it has developed a circuit that generates high-frequency bursts of short pulses in response to an input signal, and which lends itself to UWB encoding. Cellonics recently demonstrated a short-range UWB system capable of transmitting at 11.4 megabits per second. It expects the first commercial applications for UWB to be in wireless-networking equipment for homes and offices. When higher-power transmission is allowed, says Lye Hoeng Fai, the firm's boss, he expects UWB to appear in cellular systems.

Together, UWB and ad hoc architectures are a natural fit, since the UWB devices will have to locate each other and start communicating automatically, tasks that ad hoc networking readily facilitates. The two technologies are thought to have been used together in military applications for some time. UWB pulses, emitted apparently at random, are very difficult to detect or intercept, and are ideal for battlefield transmissions. UWB pulses can also be used for medical imaging, high-resolution radar, and proximity detection. But it is their potential use in communications that is arousing the most interest. Looking beyond 3G networks, and the patchwork of WI-FI and cellular networks that is often referred to as 4G, some are even referring to infrastructureless, ad hoc UWB networks as 5G.

Turned upside down

There is thus no shortage of new wireless technologies. But how these and other innovations will shape communications networks remains to be seen. On the one hand, there is a clear trend towards consolidation in wireless telecoms—with the likelihood being that there will be only a handful of global

wireless operators by 2010. On the other, many emerging wireless technologies seem to signal a move to a less informal, more decentralised model along the lines of the Internet. Dr Johnson at Rice University suggests that ad hoc networking will create more scope for “mom and pop” network operators and free community networks, all stitched together in a casual, ever-shifting web.

Network operators will still be needed to carry long-haul traffic, but their role could become less (rather than more) important in future. In the process, the entire structure of the industry could shift from a top-down approach to one that is organised from the bottom up. There are already signs of this happening in the emerging area of commercial WI-FI networks, which allow individuals to club together to form a larger network. The business models and billing systems remain uncertain. But one thing is clear: it is still very early days for wireless data.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Economist.com
PRINT EDITION
TECHNOLOGY QUARTERLY
PRINTABLE PAGE VIEW SPONSORED BY

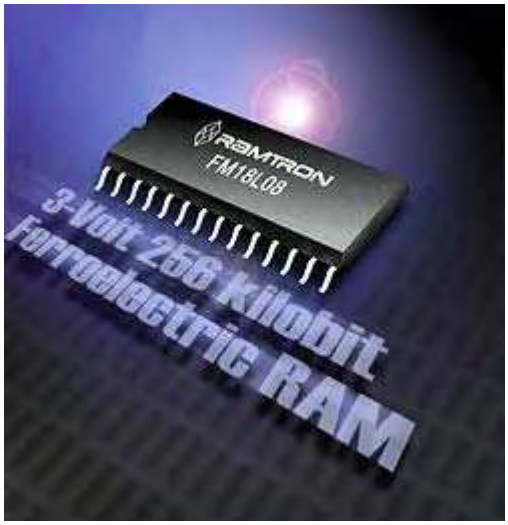
About sponsorship

REPORTS

A match for flash?

Jun 20th 2002
From The Economist print edition

Memory chips: Four new storage technologies promise cheaper and better alternatives to the pricey memory chips used in most gizmos today. But old memories, especially embedded ones, tend to linger on



MAKING memory chips has always been a cut-throat business. Even at the best of times, the margins have been wafer-thin. Meanwhile, a brutal cycle of capital investment can bleed semiconductor firms dry as they upgrade their costly fabrication ("fab") plants to keep pace with the remorseless doubling that takes place every 18 months in the number of transistors crammed on to a sliver of silicon. But bad as these ups and downs have been for chip makers, they have been good for innovation. The competition has forced semiconductor firms to find novel ways of giving their products a competitive edge. Here, the sudden proliferation of portable devices—from mobile phones and personal digital assistants to digital cameras, mini-camcorders and digital music players—has been a godsend.

Of necessity, such gizmos rely on memory chips that use little juice while storing megabytes of digital information. But even those storage capacities will seem modest once users start downloading video clips wirelessly from the Internet, instead of mere audio files and voice messages. The storage capacities needed in those handheld gadgets will then be measured in tens of gigabytes rather than mere megabytes. Moreover, the speed with which data can be written to and read from memory devices means that size will have to increase significantly if bulky multimedia files are to be played without fits and starts.

The leading semiconductor firms in America, South Korea and Japan have been pouring millions into developing mobile memory devices that take advantage of new wrinkles in conventional "flash" technology. To hold information when they are switched off or when their batteries are flat, today's mobile gadgets rely on a "non-volatile" form of memory chip that traps tiny electric charges in "wells" on its surface as a way of storing bits of data. Intel's latest flash memory device, which was designed specifically for web-enabled wireless phones, can transfer data four times faster than its predecessor, while cutting power consumption by no less than 60%.

But there is a limit to how far flash technology can be pushed. The hunt is therefore on for other forms of non-volatile memories that are also fast and cheap. Four promising technologies—magnetic RAM (MRAM), ferroelectric memory (FeRAM), polymer memory, and chalcogenides—are emerging from semiconductor laboratories around the world.

The technology for making MRAM has been around since the 1970s, when IBM developed the first "magnetic-tunnel junction" as a way of switching memory cells on and off quickly. Such a device relied on wires that were sandwiched together in a criss-cross fashion on a silicon base. The filling of the sandwich was an insulating layer (usually aluminium oxide) that was only a few molecules thick. At every point where the wires intersected, electrons could "tunnel" through the insulating middle layer, generating in the process a tiny electrical current. The IBM researchers found that the amount of current depended on whether the wires at the top and bottom were magnetically polarised in the same or opposite directions. Thus, by altering the polarisation, a "bit" of information (represented by the size of the current) could be electrically manipulated.

In many ways, MRAM fits the bill for mobile memory perfectly. Experiments show that the read/write speed on an MRAM chip can be as low as a few nanoseconds (billionths of a second). That is ten or more times faster than the best flash chips in use today. Even the fastest DRAM (dynamic random-access memory) chips used in computers look sluggish by comparison, and they consume up to 20 times the electrical power. So, a rosy future for MRAM? Unfortunately, there are tricky fabrication problems to lick. The main one is how to position the wire-and-insulator sandwich on the silicon with precision. Applying a layer of material that is only one billionth of a metre thick evenly across a wafer of silicon that is eight centimetres in diameter is no easy task.

Other chip designers are trying to side-step the problem. Alex Ignatiev of the Texas Centre for Superconductivity and Advanced Materials in Houston suggests that, rather than use the conventional “transistor logic”—as all MRAMs since IBM's original magnetic-tunnel junction have done—makers should try using “resistor logic” instead. By Dr Ignatiev's reckoning, thin films made of manganites (regularly-shaped crystals of manganese hydroxide) would provide excellent electrically programmable devices. The key is that the resistance of the manganite crystals can be electrically manipulated and easily measured. That means it is possible to generate bits of data simply by altering the material's resistance, giving rise to a class of memory devices known as resistance RAM (RRAM). The American research arm of Sharp, a Japanese electronics firm, has licensed Dr Ignatiev's innovation. Sheng Hsu, who directs Sharp's chip research programme, says that RRAM is only two or three years away from production.

Magnetic attraction

Another related approach is to use the “ferroelectric” effect. Certain materials that contain miniature magnets inside them can be polarised so their magnetic fields point either “up” or “down” simply by applying a voltage. This turns them, in effect, into switches that can then be used to store bits of data. Devices built from such elements are known as ferroelectric RAM chips.

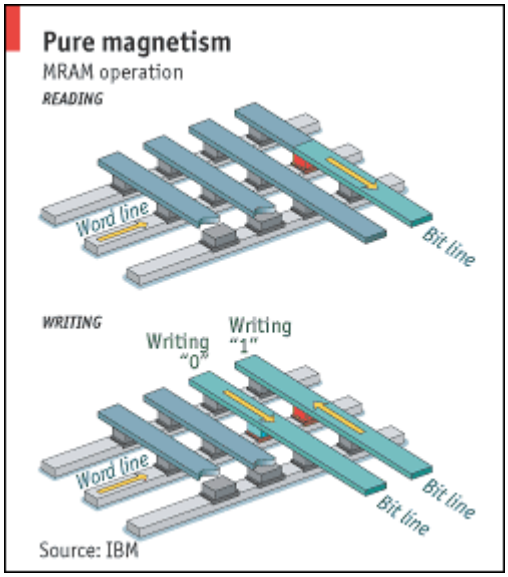
The two leading suppliers of such devices, Ramtron and Symetrix, both located in Colorado, use different types of perovskite (a ferroelectric material found in certain basaltic rocks) to achieve the same effect. Ramtron uses a form of perovskite called lead zirconate titanate, because it is widely available. By contrast, Symetrix uses barium strontium titanate, a layered form of perovskite, because of the problems that semiconductor fabs have in processing lead. Both manufacturers claim that FeRAM is poised to enter volume production. But they first need to show that they can reliably produce chips requiring only one transistor and capacitor per bit. Until recently, they have needed two transistors and two capacitors to do the job.

The largest chip maker of all, Intel, has joined the race to commercialise another sort of FeRAM. The interesting thing in Intel's project is that its ferroelectric substance is not a mineral but a polymer. Certain sorts of polymer can be engineered to be “bistable”—ie, have two different molecular architectures that are both stable. It is then possible to switch a bistable polymer between its two different structural forms simply by applying an electric current. And anything that can switch between two states can always act as a memory cell for storing a bit of data. The first to realise that memory chips could be made from bistable polymers was Thin Film Electronics, a device maker in Linkoping, Sweden. Today, Intel has a licensing agreement with Opticom, the owner of Thin Film Electronics.

Despite its unconventional material, polymer RAM resembles other memory sandwiches. An ultra-thin coat of polymer is laid between two arrays of electrodes at right angles to each other. The points where the electrode lines of one array intersect with the other become cells for storing memory bits. The advantage of using a bistable polymer, as opposed to a crystalline material such as perovskite, is that it can be stacked many layers high. With each extra stratum comes more memory. Thus, to increase a polymer chip's storage capacity, there is no need to increase the device's footprint or the density of components crammed on its surface. All that has to be done is to increase its thickness by adding more layers.

There is a price, of course. Adding extra layers means more time and extra process steps in the fab. Even so, the cost of such chips looks like coming out ahead of conventional DRAM devices. That is because, for a given number of fabrication steps, a polymer chip

could contain eight times more memory than its silicon equivalent.



But the technology that has really caught Intel's eye comes from the consumer-electronics industry. In collaboration with Ovonyx of Santa Clara, California, Intel wants to take advantage of the chalcogenide alloys (mixtures of germanium, tin and tungsten) used to coat rewritable DVDs and CDs.

The great thing about chalcogenides is that they have two states: a crystalline phase which conducts electricity, and an amorphous, disordered phase which works like an insulator. While CD“burners” and players found in personal computers these days use a laser beam to manipulate this material optically, an “ovonics” system switches between the two states electrically. Small transistors that control the flow of electrical current to the material's crystalline surface are used to apply a tiny amount of heat to individual crystals, modifying their state and thus their electrical resistance. Toggling back and forth between the two states electrically allows bits of information to be stored far closer together than is possible with the optical methods used for rewritable DVDs.

In terms of resilience, an “ovonics unified memory” (OUM) promises to be vastly better than any other memory chip. Where most forms of flash memory can be read from or written to only 1m or so times before errors creep in, studies show that OUM memory states can be addressed up to 10 trillion times. At 100 nanoseconds, the device's write speed is slower than MRAM's, but it is fast enough for most mobile applications. Recently, Intel and Ovonyx announced that they have fabricated an OUM chip capable of storing four megabits of data. Once the bugs are shaken out of the manufacturing process, Intel will ramp up the chip's storage capacity considerably.

One per cent solution

Which technology will grab the biggest slice of the portable market? Steve Cullen of In-stat/MDR, a market-research firm based in Scottsdale, Arizona, forecasts that the market for new memory technologies will reach $250m by 2006, but points out that the total memory-chip market will be about 100 times larger than this. Ferroelectric RAM, MRAM and chalcogenide look promising, since such chips may be able to do the jobs of two of today's chips in mobile devices.

But the semiconductor industry would do well to heed the lessons learned when flash memory was being introduced. Despite its “non-volatility”—a huge advantage over “volatile” chips such as DRAM, which lose their data if not continually refreshed—it still took flash a decade to achieve a modicum of success in the marketplace. And that only happened because a “killer application” (the mobile phone) rescued it from obscurity. By the same token, it could take a decade or more for polymer or chalcogenide chips to supplant flash. In digital equipment, as in people, old memories take a long time to forget.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

CASE HISTORY

Hooked on lithium

Jun 20th 2002
From The Economist print edition

Without the lithium-ion battery, introduced a decade ago, portable gadgets—from mobile phones and video cameras to laptops and palmtops—would have remained brick-like objects best left on the desk or at home. But the innovation would have floundered had electro-chemists in America not teamed up with a Japanese firm

THE Mobira Senator, launched in 1982 by Nokia, was the grand-daddy of today's mobile phones. It consisted of a small handset connected to a brick-like battery pack, with a hefty handle on top—a vital feature, since the whole thing weighed 9.8kg. Today, a typical mobile phone is a hundredth of this (ie, 100 grams or less) and can be tucked discreetly into a shirt pocket. This 99% weight reduction has been achieved largely through advances in battery technology. Above all, it is down to one particular breakthrough: the advent of the lithium-ion rechargeable battery.

Lithium-ion batteries are the foot-soldiers of the digital revolution. They power telephones, music players, digital cameras and laptops. They are amazingly small and light, and can store more energy in less space than any other type of rechargeable battery. The Ericsson T39 phone, for example, can run for a week on a lithium-ion battery the size of ten business cards stacked on top of one another. A nickel-metal-hydride battery of equivalent capacity would weigh twice as much and be about twice as big; nickel-cadmium and lead-acid batteries are heavier and larger still.

Lithium-ion batteries are also superior in that they do not suffer from “battery memory effect”, a loss of capacity that occurs when a battery is recharged before it is fully depleted. As a result, lithium-ion batteries now account for 63% of worldwide sales of portable batteries, compared with 23% for nickel-cadmium and 14% for nickel-metal-hydride.

But getting lithium-battery technology from the laboratory into millions of people's pockets was not easy, and took many years. Engineers had numerous problems to overcome. Having solved them, they are now working on even more advanced lithium batteries that will be more versatile still. Unless something entirely new comes along—microscopic fuel cells, for example, or more efficient photo-voltaic cells—the world's gadgets are likely to be running on lithium for some time to come.

Rechargeable batteries work by exploiting reversible electro-chemical reactions at the battery's positive and negative terminals (electrodes). The battery is charged by applying an electric current, which causes a reaction that puts the battery into a high-energy state. The battery can then be used as a power source. As it discharges, the electro-chemical reaction operates in reverse, releasing energy and returning the battery to its uncharged, low-energy state. Different battery types, such as lead-acid and nickel-cadmium, use different compounds and chemical reactions, but the basic principle is the same for each.

Lithium has particular appeal for use in batteries for two reasons, observes Michel Armand, a researcher at the University of Montreal and co-author of a recent paper in *Nature* about lithium batteries. First, it is the most electro-positive metal, which means it can be used to make batteries with higher terminal voltages (typically, four volts rather than 1.5 volts) than other designs. And, second, it is the lightest metal, having the capacity to store 3,860 amp-hours of charge per kilogram of weight compared with

260 amp-hours per kilogram for lead.

This means that lithium-based batteries have a high energy density, enabling them to pack a lot of energy into a small, light package. Accordingly, lithium batteries have been used since the 1970s to power watches, calculators and medical implants. But such batteries are non-rechargeable. Making a lithium battery that could be recharged was far from easy.

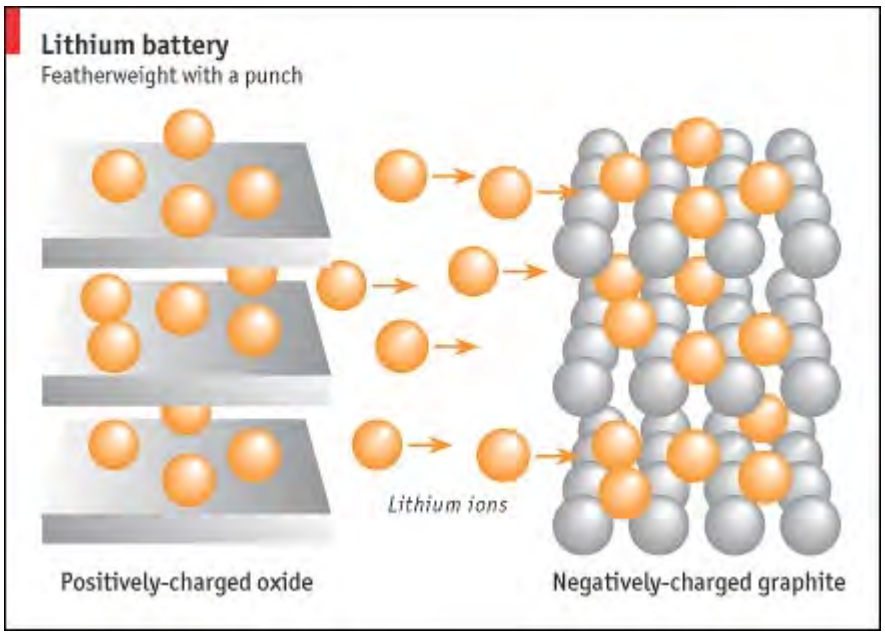
One early attempt, a research project launched in 1972 by Exxon, an American energy giant, used titanium sulphide as the positive electrode and pure lithium metal as the negative electrode. Titanium sulphide was chosen because it is an “intercalation” compound—a substance with a layered, crystalline structure that can absorb other particles between its layers, much as a sponge soaks up water. Discharging the battery causes charged atoms (ions) of lithium to break away from the negative electrode, swim through an intermediate liquid (electrolyte) and take up residence within the titanium-sulphide lattice, releasing energy in the process. Recharging the battery causes the lithium ions to swim back again, and to re-attach themselves to the negative electrode.

The drawback with this design, however, is that after repeated charge/discharge cycles the lithium does not form a perfectly smooth metal at the negative electrode. Instead, it assumes an uneven, “dendritic” form that is unstable and reactive, and may lead to explosions. This problem has never been completely solved, says Frank McLarnon, a researcher at the Lawrence Berkeley National Laboratory in California. Replacing the negative electrode with a lithium-aluminium alloy reduced the risk of explosion, but made the battery far less efficient and long-lived.

Rocking on

Instead, a new approach was tried, and was working well in the laboratory by the late 1980s. It involved using a second intercalation compound to play host to the lithium ions at the negative electrode. Discharging and recharging the battery then simply caused the lithium ions to move back and forth between the two intercalation compounds, releasing energy in one direction and absorbing it in the other. This to-and-fro technique became known as “rocking-chair” technology. The use of lithium in its ionic, rather than its metallic, state made the batteries much safer than previous designs—and explains why they are known as “lithium-ion” batteries.

By this time, a team of researchers led by John Goodenough, now at the University of Texas, had discovered a new family of intercalation compounds based on oxides of manganese, cobalt and nickel. The first commercial lithium-ion battery, launched by Sony in 1991, was a rocking-chair design that used lithium-cobalt-oxide for the positive electrode, and graphite (carbon) for the negative one.



Charging the battery causes lithium ions to move out of the cobalt-oxide lattice and slip between the sheets of carbon atoms in the graphite electrode—a state of higher potential energy. Discharging the battery causes them to move back again, releasing energy in the process (see illustration). This type of

battery is now in widespread use, and Dr Goodenough was awarded the $450,000 Japan Prize in 2001 in recognition of his work.

As well as identifying the right combination of materials, Sony's key contribution, says Dr McLarnon, was to recognise that the battery must not be overcharged. If too many lithium ions are extracted from the cobalt-oxide lattice, it will disintegrate. Besides, packing too many lithium ions into the graphite lattice can result in small particles of lithium being formed, with possibly dangerous consequences. Sony implemented a number of safety measures, including the use of a porous polymer that melts together if the battery overheats, thus preventing ion transport and shutting the battery down. It also developed a special “smart” charger with software that prevents overcharging. Such chargers are now commonplace.

Since the commercialisation of lithium-ion batteries began in the 1990s, there have been a few minor improvements, and the cost has come down substantially. One clever tweak, which has made possible the ultra-thin batteries used to power mobile phones, was the replacement of the liquid electrolyte between the battery's two electrodes with a porous separator soaked with an electrolytic gel. This means the battery can be put together like a sandwich, making thin, flat designs possible.

The next step is to move from a gel to a solid polymer electrolyte, which will be thinner and lighter still. The problem, says Dr McLarnon, is that lithium ions diffuse far more slowly through a solid than through a gel or liquid, making the battery slow to charge and discharge—unless the polymer is made extremely thin.

Still in its infancy

After that? According to Dr Armand, rechargeable lithium-based battery technologies are still in their infancy, and there is much scope for improvement. A number of promising new materials are being developed, including new intercalation compounds and aerogels for the positive electrode, as well as novel alloys for the negative electrode. Some researchers have been working on new ways to prevent dendritic growth in lithium metal-based batteries, using special electrolytes.

If lithium-ion batteries are so light and powerful, why not use them in electric cars? The main problem, says Dr McLarnon, who is working in this area, is cost. A set of lithium-ion batteries capable of powering an electric car now costs around $10,000. Lead-acid batteries may be five times heavier, four times bulkier and far less efficient—the General Motors EV-1, for example, is powered by 533kg of lead-acid batteries that take eight hours to recharge—but they are also a lot cheaper.

But now that all-electric cars have fallen out of favour, since most of their alleged benefits can also be achieved by hybrid (petrol/electric) vehicles, lithium-ion is back in the running. Hybrid vehicles need a much smaller power pack, bringing the cost of a suitable lithium-ion battery down to below $1,000. Even so, says Dr McLarnon, there is still work to be done. The batteries may wear out after a few years of use, and they must be optimised to deliver, and absorb, sudden bursts of power, rather than large amounts of energy at a roughly constant rate, which is what consumer-electronics devices require. Dr McLarnon is optimistic that this can be achieved.

The development of the lithium-ion battery is an object lesson in how pure and applied research, driven by commercial interests, can generate the incremental improvements in a technology that are necessary for transforming it into a useful product. In this case, intercalation compounds were an offshoot of pure research into superconductivity. They were then picked up by Dr Goodenough and other researchers working on battery technology; and the final pieces of the puzzle were supplied by Sony. (Dr Goodenough, who did his original research at Oxford, says battery firms in the West rejected his approaches.)

There was no single “eureka” moment, but a series of gradual improvements—with the baton passed between a number of different groups. “These things zigzag back and forth,” says Dr Goodenough. “That's how innovation works.” The baton has now been passed to new researchers, seeking further improvements and applications, from video-phones to cars. Lithium-ion batteries, it seems, still have a long way to go.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Economist.com
PRINT EDITION
TECHNOLOGY QUARTERLY
PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

REPORTS

Relishing the flavour

Jun 20th 2002
From The Economist print edition

Food technology: Researchers are finally solving the mystery of how the brain perceives flavour. The insights are helping food companies predict—and design—new products that people will find hard to resist

IN THE French classic “Remembrance of Things Past”, Proust's main character describes how a small bite of a madeleine cake dipped in linden tea unleashes a cascade of memories from his childhood. The episode perfectly captures the concept called flavour—a mix of sensory inputs that include taste, smell, texture, temperature and individual history. Flavour guides feeding behaviour, and is a major element of emotional and aesthetic life. But it is so complex that for a long time only eccentrics studied it. The recent entry of molecular biologists into the field has made it possible to go beyond merely describing perceptions of flavour to examining the biological mechanisms at work.

The terms “taste” and “flavour” are used interchangeably. Strictly speaking, however, taste refers to five basic qualities: salty, sour, sweet, bitter and umami (a characteristic of protein-rich foods such as meat and cheese). Smell plays an equally prominent role in flavour but is often underappreciated. Try holding your nose and popping a strawberry-flavoured sweet in your mouth. You will taste the sweetness, but not the strawberry until you let go of your nose and the volatile chemicals from the confectionery enter the nostrils. As if that were not complex enough, irritants—for example, carbonation or the coolness of mint—are detected not by taste or smell, but by the trigeminal sense, a part of the touch system adapted for the mouth.

The brain receives news about what is in the mouth from receptors—proteins specialised in picking up particular molecules—located throughout the oral and nasal cavities. Receptors for smell were identified in the early 1990s, and for sweet, bitter and umami only in the past two years (sour and salty tastes were somewhat better understood). That, says Gary Beauchamp, director of the Monell Chemical Senses Institute in Philadelphia, whose group contributed to some of the findings, is more than has been learnt about taste in the past 2,000 years. A receptor for capsaicin, the molecule that gives chilli peppers their bite, was identified only in 1997.

The discovery of taste receptors opens the way to mimicking, enhancing or blocking them for various desired effects—such as increasing the salty taste of low-sodium foods, or preventing the bitterness that characterises many medicinal drugs, or boosting the flavours of diets for the elderly to ensure they eat properly. But receptors are only part of the story.

Nobody knows how the brain distinguishes a mouthful of milk from a bite of bread, or chicken tikka masala in an Indian restaurant from one bought at a supermarket. Although some scientists argue that the brain's response to stimuli is a simple map of the receptors in the tongue and nose, a more compelling theory suggests that the overall patterning of signals together creates a sense of particular flavours, whose attractiveness is judged in the light of previous experience.

There are no useful algorithms to measure brain inputs and outputs against subjective reports of flavour sensations. That is good news for neurophysiologists looking for work. But for flavour and fragrance companies—with global sales of flavours accounting for more than a third of the $35 billion-a-year food ingredients market—acceptable tastes bear directly on the bottom line. There is no question that flavour

is the most important criterion for consumer acceptance of foods. And being able to predict what customers will like is the industry's greatest single ambition.

Latter-day spice trade

Throughout history, flavours have been coveted for their ability to increase the palatability of food and to enliven cuisine. In 408, Alaric the Visigoth's price for raising the siege of Rome allegedly included more than 1,000 kilograms of pepper. Industrial production of perfumes began in France in the 18th century to take the smell out of leather gloves. The flavour industry was a logical consequence of such developments.

Extracts and essential oils such as citrus were being produced in America by the late 1700s. In 1874, Haarmann and Reimer in Germany became the first company to make synthetic vanillin (from the sap of conifers) on an industrial scale. At first, isolating and identifying gustatory ingredients proved extremely hard. Not only were analytical methods rudimentary, but the substances responsible for taste are present in minuscule amounts even in concentrated foods such as crushed raspberries. After 1950, new analytical techniques made it possible to detect trace ingredients, and companies accumulated chemical libraries that today contain thousands of compounds.

Depending on what a customer wants, flavours can be used off the shelf, modified or created anew, following a principle called GRAS (generally recognised as safe). It is a constant challenge to be unique, says Bob Eilerman, leader of flavour research and development for Givaudan, a Swiss company whose scientists float over tropical rainforests in hot-air balloons to find new tastes and ingredients, capture their aromas on site, and then analyse and re-create them in the laboratory.

The most potent flavoured chemicals are created by cooking, says Anthony Blake, vice-president of food science and technology at Firmenich in Geneva. Firmenich, Givaudan and International Flavours and Fragrances, the industry leader in America, comprise the big three of flavour and fragrance companies world-wide. Small wonder that Firmenich employs techno-chefs, or that Givaudan dispatches analysts to ethnic restaurants hither and yon.

Lick this again

Like colourists grinding and mixing pigments, professional flavourists assemble the 50-100 components that are typical for a flavour into the finished product. Acceptability is measured using panels of expert and consumer (ie, naive) taste-testers in a process called sensory analysis. Trained testers might be asked to rate the taste of vanilla ice-cream according to standards for sweetness and vanilla flavour, whereas consumer testers simply register whether they like it. The process is an iterative one, with several rounds of refinement between testers and flavourists, until the product is deemed to have an acceptable taste.

Unfortunately, says Alex Häusler, director of flavour excellence at Givaudan, while humans provide the most sensitive testing instrument, they are not the most reliable. People are born with different sets of taste receptors and different ways of interpreting them. Think of the last time you watched somebody pour spoonfuls of sugar into a cup of coffee.

“A liking for sweet and salty substances reflects the wise choices that humanity's ancestors made in a hostile environment.”

Texture is a particular conundrum. It contributes substantially to the pleasure of eating, yet very little is known about it. Why is rubbery squid enjoyable and rubbery toast not? What does “succulent” mean? Since the 1960s, the food industry has devised a battery of instrument tests for desired textural properties, including poking peas with pins and bending biscuits. But theory has been lacking, and giving a carrot a whack bears little resemblance to what happens inside the mouth, where it is traversed by a multitude of physicochemical processes. Julian Vincent of the University of Bath, in Britain, is one of a small band of academic researchers who are trying to relate the results of mechanical tests to perceptions such as crispness.

The dynamics of flavour release—ie, the appearance and disappearance of flavour—have also resisted measurement. Researchers at the University of Nottingham, also in Britain, have developed and commercialised an instrument called MS-Nose that sucks in breath from a person's nose while they are chewing gum, for instance, and analyses the aroma molecules it finds there. Firmenich has adopted the technology in its search for better ways of delivering flavour. The approach has stimulated a good deal of interest, even though the results tend to be unique to the person tested.

Physiological studies of flavour are conducted using animals (mostly rats and hamsters) or bacteria, which have robust taste receptors. In humans, techniques such as functional magnetic-resonance imaging and positron-emission tomography—currently being applied to problems as diverse as working memory and lovesickness—can reveal patterns of electrical activity swishing around the brain in real time, says Dr Blake. The idea is to get a person to eat something and see what parts of their brain light up. But the technologies are not yet sensitive enough, nor are the ways of analysing the data meaningful enough, for the methods to be useful in studies of flavour. An alternative approach, says Monell's Dr Beauchamp, would be to focus on specific genes in animals and alter them to track the pathways that the brain uses in integrating signals from the receptors.

At present, finding the right enhancer or blocker for a given receptor means looking at thousands of compounds, a task better suited to automated testing than the caprices of the human tongue. Senomyx, a young biotech company in La Jolla, California, intends to use such a technology, called “high-throughput screening”, to test legions of compounds against taste and smell receptors. Whether the technique will prove more successful in food science than in pharmaceutical research and development, where it is widely used but has not yet produced a blockbuster drug, remains to be seen. Another biotech firm, Linguagen of Paramus, New Jersey, is also bringing modern science to bear in the search for flavour modifiers, particularly bitterness blockers.

The mouth is the portal of entry to the gut, and taste is the final arbiter. Innate aversions to sour and bitter substances—caffeine, nicotine, strychnine, for example—and a liking for sweet and salty ones reflect the wise choices that humanity's ancestors made in a hostile environment. Beyond these protective and nutritional reflexes, however, taste preferences are largely a matter of culture and learning. The taste system is reasonably compliant, says Tom Scott, a neurophysiologist and dean of sciences at San Diego State University in California. Cultures are kept distinct by cuisines, and cuisines are distinguished by taste.

Colliding cuisines

But cuisines, like continents, have a habit of colliding. Ten years ago, few Americans cared for raw fish. Now they eat sushi almost as avidly as the Japanese. Moreover, “acquired tastes” often involve complex contradictions that play tricks within the brain. How else do you explain the liking for strong-smelling cheese or the East Asian fruit called durian that is so redolent of vomit that it is banned on public transport in some countries? Other effects resist reconciliation, like the unbearable sweetness that artichokes lend to wine.

Flavour appears to belong to a family of subtle perceptions—such as recognising a voice or telling faces apart. But how does the central nervous system process all the information needed to make these fine-grained distinctions? The answer should help to develop cheaper and safer flavour compounds, as well as to perform tricks of alchemy such as turning tofu into steak. More fundamentally, identifying algorithms in the brain that transform taste into flavour, and comparing them with how people process complex sounds or tactile sensations, might reveal something about how perception really works.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Economist.com
PRINT EDITION
TECHNOLOGY QUARTERLY
PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

REPORTS

Inoculating the network

Jun 20th 2002
From The Economist print edition

Network security: Keeping networks secure from intruders is becoming one of the hottest bits of the computer business. As companies begin to realise how vulnerable they are, intrusion-detection firms are honing a new set of security tools that mimic the body's immune system

AS HE sat in a darkened conference hall, Steven Hofmyer decided to try a simple experiment. He opened his laptop, logged on to the building's wireless-driven LAN (local area network) and fired up a “sniffer” program designed to scan the contents of other computers on the network. Much to his surprise, he found himself looking at countless e-mail messages in laptops scattered around the room.

The surprise was not that Mr Hofmyer, chief technology officer of Company 51, a young network-security firm based in Redwood City, California, could gain access to sensitive information so easily. Rather, it was that he could break into the computers of high-tech experts attending PC Forum, one of the biggest conferences on computing. Such is the parlous state of network security.

Security experts such as Mr Hofmyer reckon that most large companies do not realise how vulnerable they are. As intellectual-property and other critical data have poured on to networks, the risks of attack have multiplied exponentially. Meanwhile, with new capabilities being brought to the Internet every year, more avenues of attack are opening up.

Making matters worse, simple human errors—say, a slightly wrong set-up that puts one particular computer outside a network's defences—can leave gaping holes in a company's security system. Compound that with the new tools used by insidious attackers to harness the very defences meant to block them, and the result can be anything from a nuisance to a disaster.

A new generation of network-security firms is out to tackle these problems—by looking in rather than out. With the help of artificial intelligence, data-mining, computer modelling and plain common sense, many of these fledgling companies are developing software and hardware approaches that let them spot, and often block, attempted penetrations, and then use the lessons learned to anticipate wholly new kinds of attack.

Not so long ago, this form of intrusion detection was dismissed as too complex and inefficient. The technology is now regarded as the next big growth market for the network-security industry. Despite the woes surrounding venture capital, a lot of hot money is pouring into network security. IDC, a market-research firm based in Framingham, Massachusetts, expects sales of intrusion-detection systems to quadruple from $485m in 2002 to $2 billion by 2005.

Start-ups such as Company 51, Okena of Waltham, Massachusetts, and IntruVert Networks of San Jose, California, are fashioning intrusion-detection systems that borrow ideas from the body's immune system. Others, including Silent Runner of Linthicum, Maryland, and Network Intelligence of Walpole, Massachusetts, are building systems that tie security functions into a simpler, more manageable unit that borrows concepts from intrusion detection. Still others are trying to harness the interconnectedness among companies for detecting threats—rather like an early-warning radar system for detecting missile attacks. Leading the pack is IBM, which is developing an autonomous computing system that has intrusion detection built into it so that targeted machines can take care of themselves.

Almost all these new network-security systems start from the notion that intrusions are inevitable. They also acknowledge that network security must be made less of a manual undertaking and therefore less prone to mistakes. The real question is not whether the technology can be made to work, but whether fancy new security tools are trying to fix the wrong problem. It could be that the best fixes for network security are far simpler—and a good deal less expensive.

Rude awakening

The widespread attacks by the Code Red and Nimda “worms” a year ago caused a rude awakening for many senior managers. These two worms wreaked havoc in almost every big network around the world. A recent survey by the Computer Security Institute of San Francisco, in conjunction with the Federal Bureau of Investigation, found that 90% of the 503 companies polled experienced security attacks in 2001; 80% of them had notable financial losses as a result. Among the 223 respondents willing and able to quantify those losses, the total cost came to $456m—nearly double their combined losses the previous year.

Part of the problem has been the short shrift that companies have paid to the security of computer networks. With the notable exception of banks, health-care groups and other regulated bodies, most businesses spend paltry sums—typically no more than 0.15% of annual sales—protecting their corporate networks. That, says Laura Koetzle, an analyst at Forrester Research in Cambridge, Massachusetts, is less than many of them spend on coffee for the staff.

What makes justifying budgets for network security hard, says Ms Koetzle, is that 60% of firms do not have a clue about how much breaches of security are costing them. The irony is that while they often have legions of security guards minding the front door, frequently only one or two overworked systems administrators are left to mind all the crucial data and business secrets. Sometimes, companies make break-ins downright easy. Sharing passwords or turning off security features to boost performance are common security gaffes.

Meanwhile, hackers are acquiring increasingly powerful tools for snooping. And many attacks are inside jobs. By some estimates, less than 30% of computer attacks are external, the remainder being carried out from within the corporate firewall. More significantly, while 90% of security breaches are copycat crimes that can be spotted easily, the remaining 10% adopt approaches that are wholly novel and therefore exceedingly difficult to detect.

That thorny 10%—amounting potentially to thousands of attacks a year at a given location—is what keeps network-security managers awake at night. With several different modes of attack, viruses and worms can easily bypass security measures. Code Red II, a worm first detected in August 2001, took advantage of a well-known vulnerability in operating systems used by network servers to gain admission. Once inside a network, Code Red II then set about creating a secret backdoor to allow subsequent attacks easy re-entry to execute malicious commands from afar.

All told, half a dozen main forms of attack are used on networks today. The most common are “buffer overflows”, caused when a computer's memory is flooded in a way that makes it overrun its buffers, so that malevolent software instructions can be slipped into the system to wreak havoc on the network. Then there are worms such as Code Red which are among the most damaging type. Spread primarily via e-mail messages, they can evolve into bandwidth-sapping or data-siphoning programs that cause damage in unforeseen ways.

So-called “distributed port scans” allow hackers to scan the entry ports in a network to find out what programs are running and where their vulnerabilities are. “Trojan horses” are yet another class of miscreants. These camouflage themselves as harmless pieces of software and lie dormant in the network, examining the keystrokes pressed by people as they use computer programs, accessing data in the system's memory and stealing passwords and files. Meanwhile, “SYN floods” produce half-open connections on the server, preventing connections from being made and bogging down operations. Finally, “malformed packets” send data in packets that exceed the maximum length allowed, crashing network components.

None of these forms of attack is new. But their variety, and their use in hybrid forms, makes them more dangerous than ever. And that, say security experts, is what makes traditional security measures wholly inadequate.

Maginot line

Seen from outside, most computer networks today resemble fortresses with massive walls to keep attackers out. Firewalls sold by the likes of Checkpoint, Cisco and Computer Associates are the first line of defence, controlling the flow of data to and from the network. Meanwhile, Virtual Private Networks (VPNs) provide encrypted tunnels between the network and known partners beyond the firewall on the Internet. In addition, virus-detection systems from the likes of Symantec and Computer Associates watch out for known viruses entering the network. And finally, authentication systems from such companies as VeriSign and Entrust manage the identities of those accessing the network, ensuring that impostors cannot get in.

All that used to be enough to secure a network. No longer. Such outwardly focused security cannot keep up with the volume and type of traffic flooding across networks these days. Far from being fortresses, most companies today are more like airports, allowing a steady flow of information into and out of the network from many different gateways. The problem is that once an attacker circumvents the firewall, he can move around unhindered on the inside. Once network operators accept that security breaches are inevitable, they can begin to defend their systems properly.

Accepting that defence mechanisms are needed inside the fortress as well as around its perimeter, the most sensible thing to do is to partition off the most critical components in some form of quarantine area. Then put a padlock on other smaller sections of the network that can be sealed off without causing too much inconvenience. Finally, a layered form of security should be added to the rest. TruSecure, a network security firm based in Herndon, Virginia, argues that attempting to lock up networks entirely is overkill and counterproductive. That is because only 10% or so of a network's vulnerability will probably account for 90% of the risk it faces. A better strategy is to isolate the network's most vulnerable parts and lock them up.

Intrusion-detection systems work rather like guard dogs. Their job is to watch the various packets of data flowing in and out of the network and evaluate suspected attacks. There are basically two forms of intrusion detection. The network-based version sits among the wires and watches the stream of packets flowing; the host-based version sits inside the computer it is protecting and watches the behaviour of the machine itself. Both work in similar ways. One way is to analyse data packets flowing through the network and compare them with large databases of known attack signatures—in much the same way that virus-detection software does. The other is to compare how the network is behaving with how it operates normally, watching for odd behaviour that could signal an intruder.

All of this works a lot better on paper than in practice. Frequent false alarms have made intrusion detection the bane of security administrators. Because of their analytical power, both types of intrusion-detection system can spot all manner of normal things that look decidedly odd, sending network administrators on wild goose chases. With better things to do with their time, those administrators have taken to reducing the sensitivity of such systems or simply turning them off.

This is where a new approach to intrusion detection may help. The latest thinking draws on lessons learned from the body's immune system. Besides being one of the wonders of biology, the immune system is also a marvel of parallel and distributed computing—and one that offers insight into how networks can be made to resist attacks naturally.

Most of the start-up firms working on such systems have to thank Stephanie Forrest of the University of New Mexico, Santa Fe, who is credited with pioneering research into connections between the immune system and network security. As such, Dr Forrest has changed the fundamental approach to security from one focused on access control to one focused on utility and self-management.

Antibodies in the works

The key is how the body's immune system differentiates between “native” and “foreign” cells. To do this, it has to distinguish the 100,000 proteins that make up the native self from trillions of proteins that are

impostors. The system relies on so-called negative detectors that do not detect bodies that are part of one's self, but can bond to alien bodies—identi-fying them in the process as potential pathogens.

What makes the immune system an apt analogy for computer security is its diversity, providing a robust form of protection both individually and on a global level. It is also highly distributed, being made up of lots of scattered components that are capable of protecting locally but defending globally. As such, the immune system has no single point of failure. On the other hand, it can make mistakes without having a catastrophic result. And the immune system can constantly regenerate and circulate new white blood cells to broaden its diversity still further. It is also highly adaptable and can change to increase its ability to spot new microbes. Ultimately, says Dr Forrest, it makes a reliable system from unreliable components.

Similarly, the computer immune system proposed by Dr Forrest and her students—now the basis of the intrusion-detection system being developed by Company 51—emulates these properties. When commercialised, Company 51's product, code-named Tonopah, will attach itself to the server's operating systems, observing and building models of all the normal system calls made by programs running on a computer.

“Far from being fortresses, most companies today are more like airports, allowing a steady flow of information into and out of the network.”

While older intrusion-detection systems observed user behaviour, which can be extremely erratic, system calls occur in more regular patterns—observing, say, when new users sign on or when new software is added. Being more predictable, such behaviour is easier to model. That, says Company 51's Mr Hofmyer, allows the system to define attacks more clearly. In such circumstances, attacks stand out as highly anomalous calls that are more erratic or come at a faster pace than usual. Most important, says Mr Hofmyer, the system makes no assumptions about the network's behaviour. So it can spot wholly new forms of attack, and block them, more readily—just as the immune system reacts to new pathogens.

In a similar vein, Okena's StormWatch is an intrusion “prevention” system that models the appropriate behaviour of every machine on the network, watching day-to-day activity to spot attacks. The software sits on top of the computer's operating system, looking for calls and comparing them with the models and corporate rules that govern the network's correct behaviour. Like Company 51's technology, Okena's operates autonomously. However, StormWatch acts as an enforcer of security policies defined by the network's administrators, but with authority to block requests that appear to threaten critical files or components.

Much the same thinking has gone into IBM's eLiza project. This seeks to create computers that can look after themselves. As part of an annual $500m programme, IBM has begun incorporating into its server computers software that can predict and prevent unauthorised access, reporting such activities to managers as they occur. Various recognition systems are strung together to help block the theft of information, as well as the “denial of service” attacks caused by hackers flooding a server with millions of requests.

Elsewhere, SilentRunner, an outgrowth of Raytheon's research laboratories, is using similar thinking to help network administrators manage security. SilentRunner correlates data from firewalls and intrusion-detection systems to give a detailed picture of suspicious happenings. Better still, it provides a clearer idea of which events pose the greatest threat, and where they are likely to strike.

A number of other start-ups are hoping to join the coming frenzy for network-security systems. Cylant, a division of Software Systems International of Moscow, Idaho, profiles normal behaviour, much as Company 51 does. It then uses these profiles to detect attacks that cause unusual behaviour in the operating system's inner kernel. Wirex, of Portland, Oregon, builds a “hardened” operating system that protects against buffer overflows, format bugs and so-called “temporary file races” (a form of attack in which the intruder takes advantage of the lag between a program checking for a file and actually writing data to it).

Source of the problem

Sceptics warn, however, that such systems simply make a complex problem more complex. Too many “point solutions” aimed at narrow problems have made security too tricky to solve, argues Peter Neumann of SRI International, a contract research firm in Palo Alto, California. The source of the

problem, he insists, lies in the operating systems, few of which were built with security in mind.

To that end, a number of firms that supply network operating systems, notably Sun Microsystems and Microsoft, have launched initiatives aimed at improving their security. Dr Neumann leads an industry-wide effort called the Composable High-Assurance Trustworthy Systems (CHATS) Project. Funded by the Defence Advanced Research Projects Agency, CHATS is seeking to build a highly secure and reliable open-source network operating system based on Unix.

Such projects will, of course, take some years to come to fruition. Until then, say security experts, companies should aim their vigilance inward as much as outward—and start spending more on keeping intruders out of their computers than they do on coffee.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

LAST WORD

Tinkerers' champion

Jun 20th 2002
From The Economist print edition

It is not just libertarians who are concerned about the restrictions caused by America's latest copyright law. Edward Felten, a professor at Princeton University, argues that the "freedom to tinker"—the right to understand, repair and modify one's own equipment— is crucial to innovation, and as valuable to society as the freedom of speech

Unlikely freedom fighter

WHEN Edward Felten began a recent presentation in San Francisco on the weaknesses of copy-protection software, he did not get far. He had just put up his first slide when two FBI agents stormed the stage, handcuffed the stunned Princeton computer-science professor and arrested him—as Dmitry Sklyarov, a Russian programmer, had been at a Las Vegas hackers' conference in July 2001. The mock arrest was the opening act of a panel at the 2002 Conference on Computers, Freedom and Privacy, a favourite get-together for tech-savvy civil libertarians, to illustrate the chilling effects of America's latest copyright law, the Digital Millennium Copyright Act (DMCA).

Yet Dr Felten could well have had himself arrested—if he were less cautious. In January 2001, the record industry threatened to sue him when he and several colleagues wanted to talk publicly about how they had broken a copy-protection system. Now, on sabbatical leave at Stanford University's Centre for Internet and Society, he is trying to develop the theoretical basis for what he calls the "freedom to tinker". As a result, Dr Felten embodies the growing tension between academic freedom and stricter copyright rules—a tension that could one day lead to scenes like the one in San Francisco being played out for real.

Nothing in Dr Felten's background predestined him for such a role, except perhaps that his interest in computer science was prompted by tinkering with his family's personal computer. What followed was a successful and speedy academic career: a bachelor's degree in physics at the California Institute of Technology, then a master's and PhD in computer science and engineering at the University of Washington. In 1993, he became an assistant professor at Princeton and in 1999 associate professor.

His research interests appear rather theoretical: operating systems, computer security, Internet software, distributed computing. But as technology increasingly penetrates society, these topics have ever greater political and legal implications. So it was only a question of time before Dr Felten was forced to deal with such matters. "The law reached out to me," he says, "and pulled me in."

Up in arms

The first outreach came in the form of a call from the American government's Department of Justice. Its lawyers were looking for a witness in its antitrust case against Microsoft who could prove that it was possible for the firm to produce a version of Windows without its web browser, Internet Explorer—a key point in a case in which the software giant was accused of illegally tying the browser to its operating system. What made Dr Felten an attractive candidate was the fact that he was generally pro-Microsoft. Even today, he sees the huge software company as a rather positive force, albeit one that should behave better.

After some hesitation, Dr Felten accepted—mainly because he was interested in what it would be like to be part of such an important

case. In fact, he became, as the *New York Times* put it, the government's “most aggressive, dogmatic and unshakeable witness”. He wrote a program that essentially took the browser out of Windows without degrading the software, thus thwarting Microsoft's lawyers, who wanted him to admit that the browser and the operating system were inextricably integrated.

Not how but why?

The experience left Dr Felten well prepared for his next encounter with the law. In autumn 2000, he and some colleagues jointly participated in a challenge to break anti-piracy systems that was sponsored by the Secure Digital Music Initiative (SDMI), a now virtually abandoned effort by entertainment and technology firms to develop standards that would have allowed music to be distributed online while preventing it from being freely copied. It was not the $10,000 reward that interested Dr Felten and his team, but the prospect of getting access to state-of-the-art commercial technology which is otherwise secret.

The challenge involved cracking a set of “watermarking” technologies—inaudible changes made to an audio file—which can tell a device whether or not to play a song. SDMI provided three sample files: an unwatermarked song, the same song with a watermark added, and a different watermarked song. The challenge was to create a file that sounded just like the third file, but with the watermark removed. An online “oracle”, to which entrants could send a file, decided whether they had succeeded.

Dr Felten and his colleagues rendered all the watermarks undetectable—in one case, simply by the trivial exercise of adding certain differences between the first and second samples to the third sample. That was the easy part. The real problem came when they tried to present a research paper about their work at a conference. Two weeks before the event, Dr Felten received a strongly worded letter from an SDMI lawyer, warning him that publication could make him “subject to enforcement actions under federal law.” According to the DMCA law passed in 1998, it is a crime to offer the public a way to defeat copyright-protection systems.

“We construct the world by interacting with it, not by letting things control us.”

Others might have simply presented the paper and risked the consequences. But Dr Felten chose to fight in different ways. His first attempt did not go far—at least, not in terms of getting a court to declare that the DMCA violates the first amendment of the American constitution (ie, freedom of speech). Supported by the Electronic Frontier Foundation, an online advocacy group, he and his colleagues then filed a lawsuit, seeking permission to disclose their work at another conference. But after SDMI representatives claimed they had no intention of suing Dr Felten, and no armed FBI agents appeared when he presented the paper in August, the judge dismissed the case.

Dr Felten's current work on the freedom to tinker is likely to be much more effective in preventing the law from limiting research. Today's debate, he says, is too focused on the negative aspects of tinkering in the virtual world—such as making copyright infringement possible, or developing products that unfairly compete with the original. His more positive argument is that tinkering—which he defines as understanding, repairing and modifying technological devices one owns—is a valuable activity, which is akin to free speech and should be protected as such.

In the real world, Dr Felten argues, the value of tinkering is well understood, and not just when it comes to machines. “We construct the world by observing it and interacting with it, not just by letting things control us”, he says. “You can't learn to write only by reading.” And just as tinkering with words leads to new ideas, he explains, so does tinkering with technology. It is a necessary first step to innovation. Being able to reverse-engineer software, for instance, is a necessary first step for writing better programs.

Yet, in today's digital world, the freedom to tinker is at risk, warns Dr Felten. There are, for a start, the DMCA and other laws which limit tinkering. What is more, electronics make even everyday products hard to tinker with. Today's cars, for instance, are computers on wheels, whose inner workings car makers prefer to keep secret. Worse, firms are starting to build devices that limit what users can do with them. For example, DVD players allow film studios to disable electronically the fast-forward button during commercials. As more and more of our cultural material is digitised and made available online, these technical restrictions could become restrictions on culture itself. Thus, the freedom to tinker ends up being about the freedom of culture.

Real world differences

In April, when Dr Felten presented his ideas in a talk at Stanford University in Palo Alto, California, he was met by scepticism. Some said his arguments did not address the crux of the issue: that there is an important difference between tinkering in the real and the online worlds. Knowing how to tune a car engine does not allow a tinkerer to build a competing product, whereas software that cracks a copy-protection system can easily be used to distribute millions of identical copies. Dr Felten agrees. But his aim is not to solve the problem of free-riding; it is to analyse the value of tinkering.

Dr Felten is concerned about other issues, too. One is whether electronics firms should be required to make their equipment easy to tinker with. Dr Felten is undecided. A well-designed product, he says, would be susceptible to tinkering, since good design tends to be modular. Some device makers, such as Lego, a manufacturer of educational toys, encourage tinkering because it helps them to improve their products.

Another issue is licensing. Consumers assume that they own products once they have paid for them. But increasingly, they are only licensing them. This is the case with most shrink-wrapped software bought in stores and with software downloaded from developers' websites. Either you accept to license, not own, the product when you click the “I accept” button at the end of those screenfuls of legalese or you cannot use it. But the same is true for an increasing number of devices, such as Internet appliances. Suppliers of such gadgets could use licences to prohibit any tinkering. Should consumers, Dr Felten asks, be encouraged to bargain away their freedom to tinker?

Dr Felten is the first to admit that his arguments are not yet focused enough. He intends to write a book about the topic when he is back at Princeton. The treatise on tinkering is certain to find avid readers—especially among the millions who spend countless hours playing with their computers, cars and cameras.

It would be a surprise if they did not put up a fight. Many are preparing to do so already. Protests are being voiced with increasing vigour against a bill recently introduced in Congress by Senator Fritz Hollings of South Carolina, on behalf of Disney and other media giants, requiring a piracy-detection system to be built into all digital entertainment devices. If the legislation passes, critics warn that personal computers would become nothing more than a costly but entirely dumb machine for playing DVDs.

The bill could also criminalise open-source software, such as the increasingly popular operating system, Linux. Copy-protection systems usually come with proprietary software that is hidden or cannot be altered—something that no self-respecting open-source hacker would integrate into a program. No wonder all those who care about innovation—the freedom to tinker and create new ways of doing things—are up in arms.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Video games

Console wars

Jun 20th 2002
From The Economist print edition

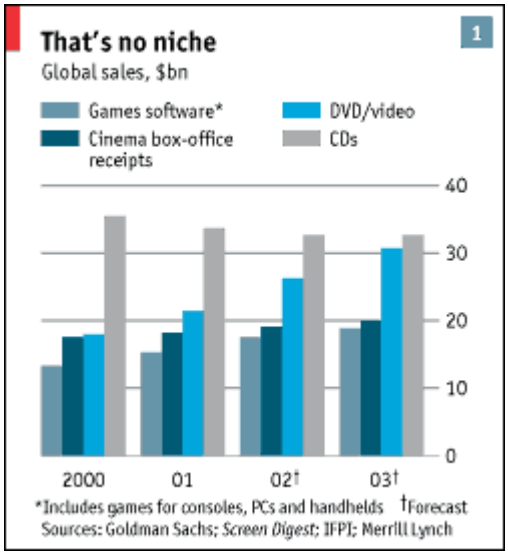
A rare bright spot in the gloomy technology industry, video games are growing up

IT IS an enthralling scenario, worthy of a summer science-fiction blockbuster: three vast empires mass-produce millions of electronic drones and send them into battle. The balance of power shifts repeatedly, as technological advances and cunning tactical footwork give first one empire, then another, the upper hand. But this is no movie. It is the video-games industry, the scene of a vicious three-way fight between Sony, Nintendo and Microsoft.

Nothing illustrates the battle's ferocity better than the eye-watering price cuts of the past few weeks. Sony, whose PlayStation 2 console has sold 30m units since its launch in March 2000, cut its price from $299 to $199 in America, and made similar cuts elsewhere. The move was intended to head off competition from Microsoft's Xbox and Nintendo's GameCube, both of which were launched in November and have sold around 4.5m units each. Microsoft followed suit, cutting the price of the Xbox from $299 to $199. Nintendo responded by cutting the GameCube's price from $199 to $149.

All three firms are losing money on their consoles, though exactly how much is difficult to say. But just as shaving companies make money on blades rather than razors, the industry works by selling consoles at knock-down prices and making a profit on the games, which typically cost $50 each. Around $10 from each game sold is passed from publisher to console maker as a licence fee. The PlayStation 2's popularity—it is outselling the Xbox by at least two to one—is due to its huge choice of titles, which the newer Xbox and GameCube cannot yet match.

Global sales of games will total $17.5 billion this year, predicts Goldman Sachs, comparable to the film industry's box-office takings and catching up with sales of music CDs (see chart 1). According to one forecast, sales of games will overtake CDs in Europe in 2005. Console sales are expected to exceed 45m this year, bringing in another $8.7 billion, predicts Shawn Milne of SoundView Technology Group, a San Francisco investment bank. In short, the games industry is now a big part of the entertainment business.



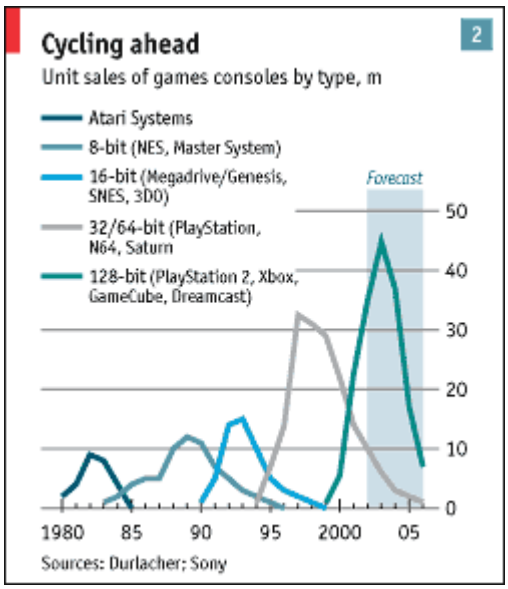
Kids' stuff? Not any more

Yet there is more to the industry's growing maturity than its hefty revenues, argues Nick Gibson of Durlacher Research. What was traditionally a disorganised and fragmented business is now far better managed, and it is consolidating fast. The largest publishers, such as Electronic Arts and Activision, have revenues around the $1 billion mark. Jessica Kourakos of Goldman Sachs notes that the industry leaders have also sensibly diversified, so that they are no longer reliant on the success of a single game or console.

But the most important shift is demographic: gaming is no longer the province of children and teenagers. According to a survey carried out by the Interactive Digital Software Association, 60% of Americans play games, either on consoles, handheld devices or PCs. Of those gamers, 61% are adults; 43% are women; and the average age is 28. Figures from Europe and Japan tell a similar story. A generation that grew up with games has simply kept on playing. And as gamers age, their disposable income increases, making gaming an extraordinarily lucrative market.

Sony's PlayStation business currently generates around 60% of the firm's profits. That figure has exceeded 100% at times. Although the cost of producing a top-quality game has tripled over the past five years to $2m-5m, a successful title can bring in $200m-300m, as much as a blockbuster movie. These days, the most popular games can rack up sales of more than $100m in their first few days in the shops.

The games business goes through a cycle every six years or so, as one generation of consoles succeeds another (see chart 2). As new hardware emerges, it takes a year or two for software developers to hit their stride. Then a boom ensues. The market grew by 10% last year, and is expected to grow by 15-25% a year until 2006, by which time new consoles will have been launched. This cycle is inevitable, given the nature of the industry, but it does have one advantage: the games business is, in effect, isolated from the broader economic climate. The current boom has occurred despite a weakish American economy; the previous one, in 1991-93, came amid a worldwide recession. (The one area of the industry that is unaffected by the console cycle is PC games, whose sales are roughly flat at $3 billion a year.)



Plug and play

The industry's biggest challenge is the shift towards “network gaming”, which offers the prospect of solid, reliable service revenues alongside the volatility of games sales. Consoles are standalone machines, but

Sony, Microsoft and Nintendo all intend to release plug-in adaptors to link their boxes to networks.

The popularity of online gaming on PCs suggests that network gaming on consoles will take off too. Sony's “EverQuest”, for example, a fantasy role-playing game, has over 400,000 subscribers paying $13 a month. So addicted are they that almost none stopped playing when the subscription was raised from $10. Sony's margins in online gaming, says Mr Gibson, are typically 65-70%.

But the expected bonanza in networked-console gaming has been postponed because of the surprisingly slow rollout of high-speed “broadband” Internet connections. Both Sony and Microsoft decided that ordinary modem connections were too slow to do justice to their advanced consoles. The lack of widespread broadband means that most observers do not expect a boom in online gaming until the next console cycle, starting in 2005. Despite this, Sony, Microsoft and Nintendo are pressing ahead with their plans in order to test the market and prepare for the next round.

Sony and Nintendo both plan to release adaptors for their consoles, and will then leave it to Internet access providers, cable companies and others to set up the infrastructure to link players together and host games. Microsoft is taking a more aggressive approach: the company has announced plans to spend $2 billion over the next five years building a dedicated network, Xbox Live, to support online games for Xbox owners. Subscription fees will be payable to Microsoft itself, which will run the network and link players together. Some publishers and access providers have criticised this approach, which they see as an attempt by Microsoft to hijack their customers.

Which of the two approaches will prevail is a matter of opinion. Mr Gibson thinks Sony's approach is more pragmatic; the company will not have to build any infrastructure, or get involved with different network technologies and billing systems in different countries. P.J. McNealy, an analyst at GartnerG2, thinks Microsoft's is the better strategy. It may offend larger games publishers, he concedes, but it will encourage smaller ones to develop innovative multiplayer games. Ms Kourakos says it is too early to say which approach is better, or what is the right business model. One possibility is that online gaming might be subsidised by advertising.

But a bigger prize than this is at stake: the opportunity to create a network of consoles through which all kinds of entertainment content, including films, games and music, can be distributed. That was Sony's original aim with the PlayStation 2, and it is what ultimately led Microsoft to move into the games market. Despite slower than expected sales of the Xbox, this is a fight Microsoft intends to stay in for the long term. The battle between the PlayStation 3 and the Xbox 2, which are expected to be launched in 2005, is likely to be the industry's most brutal yet.

It may be bruising for the console makers, but the battle for control of the games industry is wonderful for the players. Intense competition has driven down prices and led to a surge of new games, from the ultra-violence of “Grand Theft Auto 3” to the surreal delights of “Pikmin”. Gamers, on whatever console, are the winners.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Advertising

Communications breakdown

Jun 20th 2002
From The Economist print edition

Omnicom's troubles raise broader questions about acquisitions

Reuters

Big isn't always beautiful

IF YOUR auditor is Andersen, best not to lose a board member in unexplained circumstances—particularly when he is head of the board's audit committee. This week America's Securities and Exchange Commission asked Omnicom, the world's third-biggest advertising group, for information relating to the resignation last month of Robert Callander, a board member for ten years, and of a second board member earlier in the year. For a company whose business is marketing and public relations, Omnicom looks unhappily in need of the services it dispenses to others.

The saga at Omnicom began after an article in the *Wall Street Journal* suggested that, while not infringing American accounting standards, the company flattered its accounts. The article, retorted John Wren, Omnicom's boss, was full of "improper innuendoes"; there was nothing, he said, out of line in the group's reporting. Too late: Omnicom's share price fell by a third over the next two days.

Whether or not Omnicom's troubles reflect anything other than aggressive accounting, they draw attention to some structural changes that have taken place within the advertising industry—and the pitfalls they present. In recent years a handful of vast, global communications groups have emerged. Their growth has depended on a steady diet of acquisitions. Ten years ago, the top five groups controlled 20-30% of the total communications market, according to WestLB Panmure, an investment bank. Today, after Publicis's $3 billion purchase of Bcom3, they control 60% of the market. Omnicom alone now owns the three biggest ad agencies in America, BBDO, DDB and TBWA. Last year WPP, the world's biggest ad group, bought 50 companies.

No commercial brake

Top advertising groups, 2001

	Gross income $bn	Main brands
WPP	8.17	J. Walter Thompson, Ogilvy & Mather, Young & Rubicam, MindShare, Hill and Knowlton, OgilvyOne, Henley Centre, Goldfarb Consultants, Wunderman, Landor, CommonHealth, Millward Brown, Kantar
Interpublic	7.98	McCann-Erickson, APL/Lowe, FCB, Initiative Media, Draft, IPR, Octagon, NFO
Omnicom	7.40	BBDO, DDB, TBWA, Abbott Mead Vickers, Optimum, Rapp Collins, Fleishman-Hillard, Porter Novelli, Ketchum, MARC Research, OMD
Publicis/Bcom3*	4.77	Saatchi & Saatchi, Fallon, Leo Burnett, BBH, D'Arcy, Zenith Optimedia, Nelson Comms, Starcom MediaVest, MS&L

Sources: WestLB Panmure; AdAge Global *In the process of merging

This consolidation has been propelled by a mix of financial pressure and strategic logic. The need to keep

up growth in billings in order to sustain companies' share prices has fuelled the voracious appetite for mergers. The advertising agencies, like the music business, have also tried to renew their own creative energies by buying up smaller, edgier outfits.

These big groups have not only been buying up rivals in the traditional agency business. They have grown into sprawling “integrated marketing” groups, supplying anything from 30-second television commercials to public relations, market research and brand consulting. All this went unquestioned in boom times. Now, when the advertising market is at its slackest for years—America's biggest advertiser, General Motors, cut its ad spend in 2001 by 25%—the very purpose of these conglomerates is coming under scrutiny.

In some bits of the industry, there are economies of scale. Media buyers, for instance, who place ads for clients in all forms of media, from billboards to TV, can secure volume discounts if they are big enough. Hence the creation of global media-buying operations, such as WPP's MindShare, which negotiates on behalf of the group's various agencies.

It is less clear, however, that there are any benefits for the creative side. While ad agencies need to be international to meet the growing demand for global brands to be managed through a global account, there is a limit to the cost savings that can be reaped from big mergers. This is because the ad giants tend to let each acquired agency keep its own identity, premises and client list, preserving the illusion of being small within the conglomerate structure. “Creativity is otherwise difficult to manage as you get big,” says Sir Martin Sorrell, head of WPP.

Furthermore, there are limits to how far agencies can be merged, because of client conflicts. Often, different agencies within one group will have the accounts for rival manufacturers of, say, toothpaste or motor cars. The need for Chinese walls precludes co-operation, let alone integration.

What of the benefits of integrated marketing groups? The idea, pioneered by WPP, is “total communications”: to persuade companies that they do not need simply to advertise their product, but to manage a brand identity. And for that, naturally, they need the full smorgasbord of services, from market research to PR, that a group such as WPP stands ready to supply. Sir Martin says that 25-30% of his group's new business now comes from selling a client a bundle of services. WPP is not alone. Havas, a mid-sized group, now operates globally for Peugeot, for instance, on all aspects of the car maker's communications, from direct marketing to interactive commercials.

Yet this model has its limits. As Lorna Tilbian of Numis Securities points out, the fashion for companies to set a communications budget, rather than one for advertising alone, reflects a demand for a bundle of services. But some companies will still prefer to pick and mix themselves. Were integration a necessary condition for winning and keeping clients, the independents would all be suffering. Yet in the league table by revenue of net new accounts won so far this year, according to WestLB Panmure only two of the top three places are occupied by integrated giants: Interpublic and WPP. In third place, above Omnicom, sits Aegis, one of the few big independents—at least for now.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Economist.com BUSINESS
PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

South African mining

The diggers are restless

Jun 20th 2002 | DURBAN
From The Economist print edition

Is the new minerals bill about democratisation or expropriation?

FROM the recent huffing and puffing by South African mining companies, you might think the sky was falling in. This month a parliamentary committee heard final statements on a long-awaited minerals bill that could become law within a few months. Top honchos from the mining industry, which turns over 700 billion rand ($68 billion) a year, have rushed to denounce the legislation. Jonathan Oppenheimer of De Beers, a diamond company, said it could scare investors, and gave warning that some eight billion rand of planned spending by his company might be cancelled as a result. Bobby Godsell, boss of AngloGold, says the industry needs urgent protection against bad laws.

Mines matter greatly to South Africa. Gold alone accounts for about a tenth of all exports (though that is down from half two decades ago). Platinum accounts for even more. The country has the world's single largest deposits of gold, platinum, chrome, vanadium and manganese, as well as large lumps of diamonds and other mineral goodies. So the government would be foolish to put the mining industry at risk. Is it about to do just that?

The bill certainly proposes some radical changes: for example, mining rights will be taken from private hands and given to the state, which will then grant licences and collect royalties. Although state ownership of rights is common in other mining countries, such as Canada, Australia, Chile and Brazil, South Africa's shift has been branded expropriation by lawyers acting for the big mining companies. They worry that existing mining rights will not be guaranteed under a new regime. Although the government says its plan to turn existing rights into new 30-year licences is a formality, the companies wonder what will happen when those expire. They will be expected to reapply for their licences under conditions that are not yet clear.

The government argues that it is trying to create a more competitive industry by opening the way for smaller, black-owned firms to be involved alongside such giants as Anglo American, AngloGold's parent. The country's mining industry has always been white-run; for a long time it was also very profitable, because apartheid laws made it easy to keep black wages low.

Khanyo Gqulu, spokesman for the minerals and energy ministry, says the bill is about “democratising” the industry. To win new licences, companies may have to show that they have black-owned partners and a comprehensive environmental plan. To keep licences, they will have to comply with a use-it-or-lose-it system designed to prevent mineral-rights hoarding. That may give more space to foreign and small companies to start digging. South Africa's Mining Development Association, which represents smaller and black-owned mining companies, also wants a variety of social-development conditions to be attached to licences. These could include quotas for black workers and a minimum percentage of black-owned shares in bidding companies.

The big mining groups concede that the latest version of the bill is better than previous ones. They agree that black ownership should be encouraged, and have come to accept that state licensing is inevitable. But they also think that parts of the bill are unworkable. The devil is in its detail, or lack of it: the mining minister will have plenty of discretion in awarding licences, and conditions relating to social development have yet to be defined. The bill may even be unconstitutional, if the withdrawal of old rights can be shown to amount to expropriation. It may also contravene a 1994 law guaranteeing British investment against expropriation.

If the bill goes ahead in its current form, investors in a variety of industries might fear that their commercial rights are not safe. Angloplat, the world's largest platinum producer, this month announced a

20 billion rand expansion in South Africa. But others are said to be holding back until the bill's implications become clearer. The government should be careful not to contradict its wish for an open, competitive economy, however much small and black-owned companies might benefit.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Economist.com BUSINESS
PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

Switzerland's Centerpulse

Back on its feet

Jun 20th 2002 | ZURICH
From The Economist print edition

Is there life after product-liability suits? The former Sulzer Medica hopes so

NEW home, new name. On June 1st Sulzer Medica, a Swiss maker of medical devices, rebranded itself Centerpulse. A few weeks earlier, the firm had moved into a new building in Zurich, partly in the belief that the city has a more dynamic, sandwich-at-the-desk atmosphere than its old home, Winterthur, a few miles away. Workmen are still on site, and the company's name is not yet on the board outside. Helpfully, a sheet of paper stuck by the lift directs visitors to the fifth floor.

The changes of identity and location are the result of Centerpulse's final separation from its former parent, Sulzer, an industrial firm. They coincide with a third kind of fresh start: only on May 31st did Centerpulse agree to settle an American product-liability class-action suit. Its share of the $1 billion cost is $725m. More than 30,000 people received hip or knee implants, made by an American subsidiary, on which traces of oil remained after manufacture. The 3,530 worst-affected patients, whose faulty implants had to be replaced, will get an average of $200,000 each.

This may sound expensive, but it could have cost more. At worst, says Stephan Rietiker, Centerpulse's chief executive since last September, the company might have had to shut up shop in America, where it earns 40% of its revenues. The affected subsidiary would surely have opted for Chapter 11 bankruptcy had it been unable to settle with the vast majority of patients. Look at the $5m awards (albeit since substantially reduced) made last year to three plaintiffs by a Texas jury, says Mr Rietiker. The threat of bankruptcy, he says, “put a lot of pressure on the plaintiffs' lawyers”. By June 19th, all but 13 of the worst-affected patients had joined the settlement.

To deal with the suit, however, the company had to do more than merely threaten bankruptcy and offer cash. Shortcomings in management also had to be sorted out. Thanks in large part to the product-liability case, almost all the company's top brass have been replaced in the past year.

The old Sulzer Medica management made the mistake of trying to fight cases individually rather than seeking a class-action settlement. Not only was this risky, as the Texas judgment showed; it also made it likelier that similar patients would be paid different amounts. The firm lacked expertise, in particular a lawyer with experience of risk management, a gap plugged by the hiring as chief risk officer of Gabor-Paul Ondo, a former executive at UBS, a big bank that has dealt with plenty of nasty incidents in recent years.

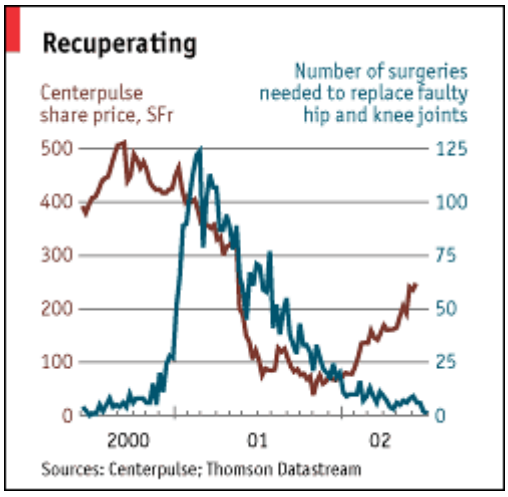
Mr Rietiker says that when he joined the company last June, the scale of the problem was unknown. That was unacceptable, in his opinion, given the enormous amount of internal data on batch numbers and quality control, as well as the company's close relationship with surgeons. “We had to get rid of some people,” he says, “because they didn't really tell us the truth. I think some people were simply frightened to report the cases.”

How much can other companies struck by product-liability cases learn from Centerpulse? Assessing the maximum scale of the damage and using the threat of bankruptcy obviously helped. However, so did the clear-cut nature of the case. It was evident that the company was to blame; faults in hip or knee replacements come to light within a few months; the company had no deaths to answer for. Cases involving drugs or asbestos, say, are not usually so straightforward.

Just as hard to assess is the long-term damage all this has done to Centerpulse. Its reputation has suffered—and it was further dented when a British patient died last month after a simple testing device, supplied but not manufactured by the company, broke. Mr Rietiker says that American surgeons are

returning to the company: revenues from joint replacements in the United States were 10.2% higher in the first quarter of this year than in the same period of 2001.

There is still plenty to do, even though the share price has recovered from the clobbering it took as the implant catastrophe unfolded (see chart). Mr Rietiker inherited a clutch of overpriced acquisitions from his predecessors. Centerpulse said last week that it would sell its heart-valves and vascular-products businesses and concentrate on its old core of hip and knee replacements, plus products that encourage the body to regenerate its own tissue. This sharper focus ought to make the company stronger—though perhaps not strong enough to stay independent for long.



Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Vivendi Universal

Water torture

Jun 20th 2002 | PARIS
From The Economist print edition

A chunk of Vivendi's water utility goes up for sale. Might telecoms be next?

Get article background

WHAT a difference a few months make. Last December Vivendi Universal, a global media and telecoms giant, sold 9.3% of its 72% holding in Vivendi Environnement, the water utility from which the group evolved, and said it would hold its remaining 63% on a "lasting basis". On June 17th it abruptly changed tack, saying it intends to reduce its stake to 40%, allowing it to deconsolidate Environnement from its accounts.

News of the sale breathed some life into Vivendi's feeble share price. On the face of it, the deal is a good thing. It will raise *euro*1.7 billion ($1.6 billion) of cash that can trim the group's crushing *euro*19 billion of debt. Helpfully, Vivendi's accounts will in future reflect its media and telecoms businesses without the confusing addition of Environnement.

But greater clarity will do little to ease the pressure on Jean-Marie Messier, Vivendi's beleaguered chairman and chief executive. Indeed, the share sale last December and the latest announcement provide strong evidence of how tricky a dilemma he faces. He must reduce his group's debts. But none of the potential options for doing so is easy or attractive.

It is not only the slide in Vivendi's share price that has put Mr Messier on the spot. Last month the board created a special committee to oversee his decisions. That followed unease among directors that they had not been properly briefed before Mr Messier took big strategic decisions. On June 14th ADAM, an organisation that represents minority shareholders in France, applied to the courts to obtain records of Vivendi's board meetings. It suspects that directors were not given enough information by Mr Messier to allow them to fulfil their legal duties.

Vivendi's recent moves point to the urgency of its problems. Earlier this month it sold Telepiu, a loss-making Italian pay-TV business that had been draining precious cash from its parent, Canal Plus; since Canal Plus is a subsidiary of Vivendi, it was in turn drawing cash from the group. The sale, to Rupert Murdoch's News Corporation, eases this cash problem, but it is also a humiliating exit from a big market.

There is growing speculation that Mr Messier's next move might be to sell his most valuable telecoms asset. Vivendi owns 44% of Cegetel, which in turn has an 80% stake in SFR, France's second-biggest mobile operator. Yet Vivendi consolidates all of Cegetel's earnings, flattering its reported numbers. As a result, last year Vivendi's telecoms businesses contributed a disproportionately high *euro*2.31 billion to its *euro*5.04 billion ebitda (earnings before interest, tax, depreciation and amortisation).

Assume, as some analysts do, that Britain's Vodafone might pay some *euro*6 billion for Vivendi's stake in Cegetel. After such a deal, Vivendi's ebitda would almost halve, but its debt would still be over *euro*10 billion. In other words, Mr Messier would have financial ratios little better than those he is struggling to improve today—an absurd price to pay for such a strategic retreat.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Economist.com BUSINESS
PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

Airlines in China

CAAC-handed

Jun 20th 2002 | HONG KONG
From The Economist print edition

Were it not so chaotic, China's aviation market might be hugely promising

EVEN without crashes, the restructuring of China's airlines was going to be hard. Beijing's plan to merge the country's 11 state-controlled airlines into three national champions already had government departments and carriers wrangling over who would get which assets. Amid this bickering, in April a jet belonging to Air China, the intended flag carrier, crashed, killing 122 people. In May another jet crashed, this time belonging to China Northern, another airline involved in the mergers, killing 111. Stunned, the aviation regulator first announced that consolidation was on hold, and then that it was back on schedule. The airlines now say they are ready to start merging later this month.

It would be unfair to blame the disasters entirely on China's botched previous attempts at aviation reform. It is fair, however, to say that since the 1980s chaos has reigned in what is potentially one of the world's most lucrative markets for air travel. Since 1978, when China embarked on market reforms, its air traffic has increased on average by 17% a year. Last year the market shrugged off September 11th and grew by 10%. And yet most of China's airlines made losses throughout the 1990s.

Most of the industry's problems go back to the 1980s. Hoping to stimulate competition, the Civil Aviation Administration of China (CAAC), at that time the country's operator as well as regulator of air traffic, began allowing start-up carriers. It soon became a sort of virility symbol for officials in local and provincial governments across China to operate their own airlines. By the late 1990s, some three dozen carriers were flying.

This led not only to overcapacity but also to peculiarly irrational flight patterns. The cadres who ran the carriers appeared to choose routes according to their own travel preferences, for political reasons or for prestige—which explains why, for instance, seven operators fly between the poor inland cities of Chengdu and Kunming. According to Tony Perkins of McKinsey, almost every route in China is serviced by two or three times the number of carriers that comparable routes in such developed markets as America support.

In theory, the carriers compete only on service quality and scheduling, because the CAAC still regulates ticket prices. In practice, however, the airlines have for years been offering huge discounts to fill their empty seats, and these grey-market price wars have turned most routes into loss-makers. The CAAC sporadically tweaks its price floors and ceilings to move them closer to market rates, but never quite matches them. Earlier this month it threatened to punish aggressive discounters with fines and even jail sentences.

Fearing even more chaos, the government has shied away from full price liberalisation. It hopes for orderly consolidation first. Yet previous attempts to reduce the number of carriers have not gone well. The CAAC has been trying to coax the many small provincial carriers, which are only indirectly under its control, into mergers, but there are still 25 airlines in all. The regulator does, however, have direct control over the 11 airlines owned by the central government, which together have 416 aircraft and 81% of the market. It plans to merge these into three groups. This could, over time, lead to a more rational market.

Whether the plans succeed will depend on three factors. First, the CAAC will have to learn to become a proper regulator, which in large part means ceasing to meddle in the carriers' operations. At present, for instance, the CAAC regulates jet-fuel prices and aircraft procurement. Second, the government will have to bring China's creaky aviation infrastructure up to scratch. And third, sooner or later, the government must accept that only the market can send the right price signals.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Economist.com BUSINESS
PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

Face value

Losing his Sparc

Jun 20th 2002
From The Economist print edition

Can Scott McNealy steer Sun Microsystems away from trouble?

IS YOUR company toast? You might expect Scott McNealy, the boss of Sun Microsystems, to consider the question insulting. But he has now heard it too many times since assuming the helm of the Silicon Valley computer maker 18 years ago to take offence. Sun, he will tell you, is still a powerhouse. The company that created the Java programming language is, after all, also the world's leading vendor of powerful network computers, called servers. It had revenues of more than $18 billion in fiscal 2001, and has nearly 44,000 employees worldwide.

Now, though, Sun watchers are asking the impudent question even more than before. Their concern is not that the firm's revenues are down by almost a third from the height of the boom—what technology firm is not suffering? More worrisome is that several top executives have recently announced their departure, including Ed Zander, Sun's number two. But most importantly, there is the danger of Sun being caught between a rock and a hard place: competition and commoditisation.

Mr McNealy has reacted to these dangers by gripping the reins more firmly. He is shaking up his management team—hence the high-profile departures. And he is betting on a new software strategy, part of which was unveiled on June 19th. His goal: to make Sun the dominant vendor of what he calls “the big freaking web-tone switch”—the hardware and software that generates computing power once it no longer sits on the desktop, but comes through a connection in the wall.

Quite some ambition for somebody whose roots are decidedly untechnological. Mr McNealy's father was a manager at American Motors Corporation, a now-defunct Detroit car maker. Indeed, McNealy junior opted for a job in manufacturing after graduating from Stanford University's business school in 1980. At Sun, he started out in charge of hardware production, before becoming chief executive in 1984 at the tender age of 29.

Even today, he is an odd cross between high-tech executive and manufacturing man. He plays golf, of course, but ice hockey too. In public, he displays the arrogance to which bosses of big software firms are prone, but internally he is considered a team player. He is suspicious of those who wax clever, yet he is also famous for putting his mostly libertarian thinking into pithy one-liners (“Have lunch or be lunch”, “You have zero privacy anyway. Get over it”). He looks conventional, but doesn't always think that way: his four sons' names are Maverick, Dakota, Colt and Scout.

Most of Mr McNealy's irreverent humour is directed at Microsoft, which he trashes at every opportunity. “What are the top ten signs that your pacemaker is running Windows?” he once asked. “You have to reboot during sex; your wife starts calling you Micro Soft...” Expect him to ridicule Microsoft's decision this week, in a “concession” in its antitrust case, to support an outdated version of Java in the Windows operating system.

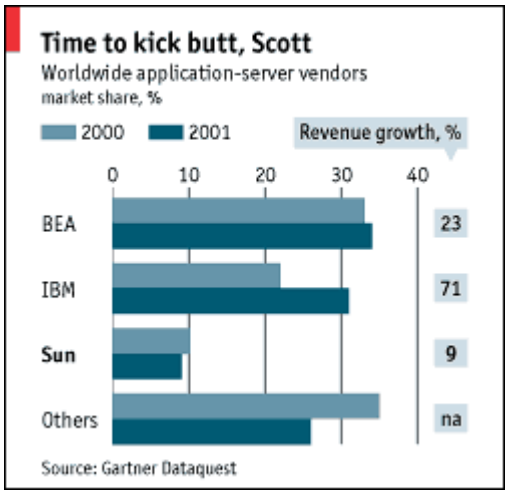
Yet Sun and Microsoft are not as different as they might seem. If Microsoft is a monopoly, the vendors of programs for corporate computing are a cartel—with Sun dominant in high-end servers and operating systems, Oracle in databases, SAP in enterprise resource planning (ERP) and IBM in services.

This cosy set-up is under increasing strain. Sun in particular could find itself squeezed. There is mounting

pressure from below, from commoditisation, which means that standards-based IT solutions defeat proprietary offerings because the first can be mass-produced and so attract more research and development. The open-source operating system, Linux, and servers built around Intel chips, mainly a new microprocessor called Itanium, are a growing threat to Solaris and Sparc, Sun's home-grown operating system/chip package.

Trouble is also brewing from above. Traditionally, much of the action in corporate IT was in operating systems and databases. Now, the battle is shifting to “middleware”—a collection of programs to run web-based applications and link hardware and software over the Internet. This vindicates Sun's vision that “the network is the computer”. But ironically it is Sun's competitors that may take advantage. IBM and BEA dominate the market for application servers, a core piece of middleware (see chart). And Microsoft is rolling out its .NET platform.

Mr McNealy scoffs at all this. To him, Sun's operating system is a “sport utility vehicle with all imaginable features” compared with the “bare-bones scooter” that is Linux. As for middleware, though Sun lags in application servers, it is still ahead in terms of overall technology.



Yet if recent announcements are any guide, Mr McNealy clearly thinks that Sun needs to change. In February, the company surprised the market with the news that it would soon start selling computers powered by Intel chips and Linux to extend its product line at the lower end. Sun is also increasingly pushing its middleware platform, called Sun ONE. To gain market share, it has bundled its application server with the latest version of Solaris and will give away a basic version for other operating systems. And it is also working on N1, a super-operating system for the network.

The question is whether Mr McNealy can make these changes count—and thus turn Sun into more of a software firm. Few would dispute that Sun's engineers write good code. The trouble is that its salesforce is not yet adept at selling it.

Rumours of Sun's imminent demise are surely exaggerated. The company has $6 billion in cash—enough to weather several storms. As for Mr McNealy, even Sun's harshest critics have yet to call for his head. Nor does he seem ready to stop “kicking butt and have fun”. But if he really wants to play with the big boys in software and services, he will have to do plenty of butt-kicking within his own company. Sun may not be toast, but the temperature is rising.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Economist.com BUSINESS
PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

American companies

Trial and error

Jun 20th 2002 | NEW YORK
From The Economist print edition

AP

Is Andersen's conviction by a jury (above) the beginning or the end of justice for America's recent corporate excesses?

Get article background

ON THE face of it, prosecutors scored a huge victory on June 15th when a jury, after ten days of deliberation and one (rejected) plea to be released from their task, convicted Andersen, the notorious auditor of Enron, of obstruction of justice. Not only has the decision in effect killed one of the world's largest audit firms, it raises the prospect of more cases to come—with the probable next target the executives behind the bankruptcy of Enron, the biggest corporate collapse in history.

Or did they? In practice, the conviction raises as many questions as it answers; and it might mark the end of the process of bringing culprits to justice, not the beginning. The questions fall into several categories: was the government wrong to charge Andersen with obstruction of justice? Was it wrong to pursue criminal, rather than civil, charges? Does the result increase or reduce the chances of further prosecutions of the malefactors within Enron and Andersen? Will it weaken or strengthen the case for reforming the governance and auditing system that allowed Enron to fail? And, most disturbingly, has anything really changed?

Andersen was found guilty of obstructing a government investigation, a charge that was only tangentially related to the holes in Enron's financial statements, and not related at all to Andersen's real offence of undermining financial markets by publishing misleading information. Indirect prosecutions have a long and mostly honourable history. Al Capone famously went to jail for tax evasion; Ivan Boesky and Michael Milken were found guilty of “parking”, a crime so obscure that few on Wall Street today know what it means.

However, indirect prosecutions can come at a cost, because they leave the real illicit activity undefined. In the past month alone, new accounting gaps have been revealed at Tyco, audited by PricewaterhouseCoopers, and Adelphia, audited by Deloitte & Touche. Nothing in the Andersen case establishes a standard for what constitutes responsible auditing.

The case is sure to motivate prosecutors to bring more cases. With victory comes credibility. Conversely, a loss would have been devastating, particularly because the case was brought after the Andersen partner in charge of Enron's audit, David Duncan, had pleaded guilty and agreed to testify for the state.

Yet the lengthy deliberation and subsequent statements by the jurors show how close the government came to losing.

The prosecution's central argument—that Mr Duncan had obstructed justice by ordering a massive shredding of internal documents—was rejected by the jury, after Mr Duncan testified that he was unaware of the illicit nature of his actions until long after they had taken place. That meant that he lacked criminal intent, a requirement that makes convictions for white-collar crime particularly hard to secure. At loggerheads after eight days of deliberation, the jury, with a complicit judge, eventually achieved consensus by constructing its own theory of obstruction, centred on deletions to an internal memo written by Mr Duncan that were demanded by Andersen's in-house lawyer, Nancy Temple.

By handing down a criminal indictment on Andersen, rather than using the more common method of bringing a civil case through the Securities and Exchange Commission (SEC), the government vastly complicated its task. Not only did it face a far higher burden of proof, it also pre-empted Andersen's ability to restructure under the leadership of a committee headed by Paul Volcker, a former chairman of the Federal Reserve Board. Almost any form of criminal settlement would have put the firm's audit business at risk, making the mere fact of indictment a death sentence.

Diaspora

Andersen's business dispersal since Jan 1st 2002

	Publicly traded clients in US	Affiliates
Ernst & Young	207	France, Germany & Central Asia
KPMG	189	Japan
Deloitte & Touche	173	Spain, Italy, parts of Latin America
PricewaterhouseCoopers	125	China & Hong Kong
Other	68	
To be decided	60	

Sources: *Auditor-Trak; The Economist*

It is also possible that the government underestimated the partners' sense that there was nothing to be lost in fighting the case, since the private litigation that would accompany any settlement would inevitably exhaust the firm's capital and put a claim on future profits as well. With Andersen's demise, partners will be freed from agreements that prohibit them from taking existing clients to new firms.

In his investigation of the 1980s Wall Street scandals, the then US attorney Rudolph Giuliani began with a little fish, Dennis Levine, who sold out a bigger fish, Martin Siegel, who sold out an even bigger one, Ivan Boesky, who turned over the biggest of them all, Michael Milken. No doubt the government hoped a similar pattern would emerge from Andersen's prosecution. When the firm's March 7th indictment was followed a month later by a guilty plea from Mr Duncan, the foundation appeared to be laid for a repeat of the 1980s. Mr Duncan would implicate his contacts at Enron, if not his associates at Andersen as well, and they would in turn implicate others.

Next targets

But in this case the fish seem to be getting smaller, not bigger. Ms Temple, who refused to testify citing the risk of self-incrimination, is now a possible target, although John Coffee, a professor at Columbia Law School, thinks the government may not be willing to risk Ms Temple's possible exoneration, because this would undermine the conviction it has now secured. In any case, putting Ms Temple under pressure to give evidence may be of limited value. Her position inside Andersen means she had little involvement with Enron executives. That leaves the possibility that a massive scandal will end with nobody held responsible.

A special Enron task-force of 30 FBI agents and eight prosecutors has been working since January on building a case against the company. Close attention was paid during Andersen's trial to questions by the government concerning information that Enron may have withheld even from the accounting firm, in part because Enron's likely defence for any financial transgression will be to blame Andersen. The government, says Mr Coffee, will probably go after Enron's former chief financial officer, Andrew Fastow, who has already been blamed, in a special report prepared by Enron's board in February, for withholding crucial information and wrongly reaping multi-million-dollar rewards. Theoretically, at least, Mr Fastow could then make a deal to implicate Enron's two top bosses, Kenneth Lay and Jeffrey Skilling.

In the meantime, the grittier work of mopping up the remains will quietly go ahead. On October 11th, Andersen will be sentenced to a fine of up to $500,000. An appeal will then be filed. By the time it is heard, Andersen will be gone.

Already, Washington seems to be tiring of Enron. Congressional hearings have ceased, as have most accusations of political impropriety. Away from the limelight, Enron has, ironically, reverted to its former

role of providing handsome profits for accountants and lawyers. Its remaining assets, primarily its old pipeline and a Portland, Oregon, utility, are worth between $5 billion and $10 billion, according to one person involved in its bankruptcy. But the list of claimants is huge.

More than 4,500 petitions have now been submitted to the New York bankruptcy court, including $3m in compensation by Ernst & Young, and $2m by PricewaterhouseCoopers, two of the four remaining accounting firms. Among law firms, Milbank, Tweed, Hadley & McCoy, which represents the creditors, has bills in excess of $8m, while Weil, Gotshal & Manges, an adviser to Enron, has outstanding bills of $24m. The clean-up promises to be both messy and expensive.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Economist.com BUSINESS
PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

Chief executives

Churning heads

Jun 20th 2002 | NEW YORK
From The Economist print edition

Who's right for a crisis?

AMERICA'S chief executives continue to fall from their pedestals. This week it was the turn of Joseph Nacchio, the boss of Qwest, a rapidly constructed and now troubled telecoms giant, and Dennis Bakke, a co-founder of AES, an energy company whose shares have declined from over $70 in October 2000 to just over $5 this week.

Most departing chief executives leave their companies' finances in a mess. But not their own. Mr Nacchio made $75m from options that he exercised last year, not to mention the $27.1m he received in salary and bonus. A filing by Enron this week showed how much the bankrupt energy company's bosses made in its closing days. Over $680m was paid to 140 executives last year. Kenneth Lay, the chairman, pocketed $67.4m in salary, bonuses and stock options. Jeffrey Skilling, chief executive until August, made some $40m. And Andrew Fastow, the chief financial officer and focus of current investigations into the company's activity, was paid a salary and bonus of $5.6m. In addition, the off-balance-sheet partnerships at the centre of the inquiries into Enron's wrongdoings netted Mr Fastow more than $40m between 1999 and the end of 2001.

Like ageing film stars, many of these ex-bosses seem unable to understand why their fans no longer love them. Bernie Ebbers, ousted at the end of April from WorldCom, another wrecked telecoms firm, continues to protest his innocence. Michael Armstrong, soon to step aside at AT&T, a mere shadow of what it was when he took it over, can think only of his legacy, which apparently nobody appreciates. Mr Nacchio seems to have been one of the few Americans surprised by the news of his own dismissal.

Mr Nacchio “went because he was obsessed with growth” says Mark Bruneau of Adventis, a consultancy. Recent events have taught investors to treat growth-oriented company bosses with a measure of suspicion. And there are still plenty around, particularly in the information technology and energy sectors: men whose hunger for acquisitions, aggressive accounting (mostly of the sales-inflating type) and large personal rewards knows few bounds. The personal accoutrements of the next to fall, says Bob Monks, a shareholder activist, might well include “a house in excess of $10m in Aspen, Colorado, an extremely showy yacht, and a matrimonial change, since the girl you grew up with clearly does not understand that you've become a demi-god.”

The bosses left over from the 1990s struggle in today's unfamiliar world. But their successors seem to appreciate that there are new rules to the game. Sam Palmisano, who took over at IBM in March, began his tenure with a good, honest profits shock. Richard Parsons, the new face at AOL Time Warner, has pledged to “underpromise and overdeliver”.

Burson-Marsteller, a public-relations company, tracks chief executives' reputations, an intangible corporate asset which was said, at the height of the 1990s boom, to explain a large part of a company's stockmarket price. A few years ago, says Burson-Marsteller's Leslie Gaines-Ross, the most important ingredients of a chief executive's reputation were reckoned to be “brand-name status, a track record and visibility”. These days, she says, his most precious asset is credibility.

One obvious effect of all this bloodletting is that bosses are staying in their jobs for ever shorter lengths of time. Booz Allen & Hamilton, a consultancy, calculates that in 1995, the average tenure of bosses of the world's 2,500 most valuable companies was 9.5 years. By 2001, this had fallen to 7.3. Broadly, there are two sorts of reaction to these figures. One is to blame the short-termism of shareholders. On average, according to Burson-Marsteller, bosses now have just eight months to develop a strategy, 19 months to increase the share price, and 21 months to turn a company round.

The other reaction is to blame the board for picking the wrong boss in the first place. Increasingly, argues Jeffrey Sonnenfeld of the Yale School of Management, boards are hiring outsiders as bosses at the wrong time and for the wrong reasons. The result, says Mr Sonnenfeld, has been a bidding war for a small pool of “recognised” talent, a sad neglect of good, internal managers, and an ever-lengthening list of star failures. Think of George Fisher, who jumped from Motorola to fail at Kodak; or John Scully, who fizzed at Pepsi, but fell flat at Apple.

There is only one circumstance that justifies hiring an outsider as the boss, says Mr Sonnenfeld: a crisis. Americans feel they do now have a crisis, so outsiders are more in demand than ever. That could mean that the next generation of star bosses actually earn their rewards.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Economist.com BUSINESS
PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

Auditors

House of correction

Jun 20th 2002
From The Economist print edition

American accountants are to be subject to new regulation. None too soon

AP

Sarbanes (centre) and Pitt (right) are not so far apart

INVESTORS in American companies can take heart: at last it looks as if auditors might be forced to do their job properly. This week, a Senate committee chaired by Paul Sarbanes, a Democrat from Maryland, approved draft legislation that will create an independent oversight board to set audit standards, punish miscreant auditors, and sharply limit the consulting and other non-audit work that accounting firms can undertake. Admittedly, the Sarbanes bill may not make it to the statute book—the House of Representatives has been more hospitable to accountants' lobbying. But if it does not, the Securities and Exchange Commission (SEC) also has a plan for an independent regulatory system for auditors ready in the wings.

For months after Enron's bankruptcy, it seemed (remarkably) as if there would be little change in the regulation of accountants in America. The big firms lobbied hard against reform, supporting a bill in April that envisaged a weak oversight board, under the power of the SEC and without statutory power.

However, the conviction of Andersen, together with the flood of revelations about companies that have manipulated their accounts—Peregrine Systems, a San Diego software maker, is one of the latest to admit massive accounting errors—has frightened even the most auditor-friendly congressmen into action. The Sarbanes bill was approved by the Senate Banking Committee by a vote of 17 to 4, giving it bipartisan support and a greater likelihood of becoming law than had earlier seemed likely. The accountants' trade body, the American Institute of Certified Public Accountants, loathes the Sarbanes proposal, calling it a “de facto government takeover of the accounting profession”.

Meanwhile, Harvey Pitt, the chairman of the SEC, has designed an alternative regulatory system that would come into being if Congress were in the end to fail to legislate. His “public accountability board”, unveiled this week, would have mandatory funding from audit firms and companies, and would consist of nine people, six of whom would have no connection with the accountancy profession. It could punish accountants with fines and public censure, remove them from audits or forbid them to work again on public companies. Mr Pitt says that the SEC will also consider changes to its rules on auditor independence, which could include new limits on non-audit services.

The SEC's oversight board does not, however, pack quite the same muscle as the one described in the Sarbanes bill. It would rely in part on private-sector bodies—such as the AICPA's Auditing Standards

Board—to set audit standards; in Mr Sarbanes's version the board would set them itself. The SEC's part-time board could include three practising accountants, still with a duty to protect the profitability of their own firms; Mr Sarbanes's, which is full-time, would include just two retired accountants. “The Sarbanes bill will provide investors with much greater protection from another Enron than would Harvey Pitt's proposal,” says Lynn Turner, former chief accountant of the SEC, pointing to the bill's provisions on non-audit services, audit standard-setting and the greater distance of the board from the accountants.

Under its present system of self-regulation, says a senior partner at one of the big four accounting firms in Britain, “the industry in America has got away with murder.” British accountants hope that their more independent framework, introduced in 2000-01, will protect them from the kind of sweeping reform that is now on track in America. The rest of the European Union has accepted new guidelines from the European Commission, but these are what the profession calls sensible.

If Mr Sarbanes's proposal becomes law, without too many concessions along the way, America may find that it has gone from having one of the world's laxest systems of audit regulation to having one of the most rigorous.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Correction

Jun 20th 2002
From The Economist print edition

In our special report on corporate governance (June 15th), we incorrectly reported that Lou Gerstner, a former chief executive of IBM, was rewarded upon his retirement with $100m-worth of IBM's shares. In fact, Mr Gerstner's reward was 125,000 shares (currently worth about $10m), which he will receive when he resigns as chairman of the board.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Valuing stockmarkets

Calling for the band to strike up

Jun 20th 2002 | NEW YORK
From The Economist print edition

Corbis

Equity markets are falling, and the explanations are plentiful

Get article background

NOW should be the time, with America's economy emerging from what seemed a relatively mild recession, for stockmarkets to roar ahead again. When equity prices fell in the weeks after last September 11th, no one could have been shocked. Nine months on, however, amid upbeat economic data, punters still hope the band will strike up again. Instead, share prices continue to slip. In rich countries they are back near their post-attack lows. America's Treasury secretary, Paul O'Neill, who among his many duties presumes to know the appropriate level of share prices, says he finds the falls “inexplicable”. Yet explanations abound.

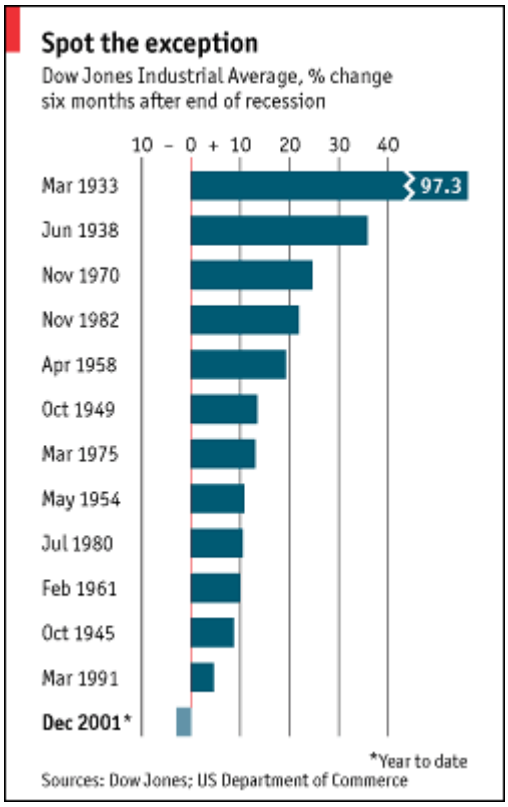
But first, consider the expectations of investors in America, who over the past 20 years have become accustomed to high, sometimes double-digit, returns from shares. Many, indeed, have come to expect a summer rally like the one that launched America's long bull run back in August, 1982. Today, with share prices broadly where they were in late 1999, the bullmarket wisdom of always buying “on the dips” might seem to apply. Yet this summer—and possibly for some seasons to come—that wisdom may not be borne out.

Sluggish profits are one reason to think so. In good times, equity markets do not need profits, as the dotcom bubble showed. Now, thanks to doubts about the quality of corporate accounts, profits are at the front of investors' minds. While bulls point to rising figures for economic growth, production and consumer confidence, firms are finding that corporate profits are rising rather more slowly, if at all. America's Bureau of Economic Analysis says that after-tax profits grew by only 1% in the first quarter, and remain 27% below their peak in 2000. But companies' own figures are losing credibility.

The integrity of published profits is being called into question everywhere. One measure of valuing shares, the price/earnings (p/e) ratio—the share price divided by earnings per share—is

certainly stretched, no matter how you look at it. The range of p/e estimates is also wide, thanks to uncertainty over the “e” side of the ratio. Take your pick from various accounting measures of earnings: pro-forma, operating, excluding extraordinary items, or with or without employee share options as an expense. Depending on the type of earnings used, p/e ratios are now somewhere between the high teens and (rather more likely) the low 40s. In any case, they are far above America's long-term average of 16.

Next, bring out the equity-risk premium—the excess return, over and above riskless government debt, that investors expect for holding risky shares. Not long ago, authors wrote touting targets for the Dow Jones Industrial Average of 36,000 and even 100,000 (it is under 10,000 today). They reasoned that shares as a whole were no riskier than government debt. Investors, recognising this, would demand no more return than that from government bonds. They would bid share prices greatly upwards, and the risk premium down to zero.



Talk of the risk premium's demise was premature. Some analysts, such as Chris Johns of ABN Amro, a Dutch bank, expected the risk premium to rise after September 11th. Instead it fell, partly in response to quick action by the world's central banks in cutting interest rates. Today, though, with interest rates already almost as low as they can go, a new bunch of risks may be occupying investors: geopolitical instability (in the Middle East and Kashmir) as well accounting uncertainties. Investors may demand higher returns for jumping back into shares, implying a fall in share prices to levels that more accurately reflect the risks.

By Mr Johns's measure, American share prices imply a risk premium of around 3%. Traditionally, the risk premium that investors demand has been closer to 6-8%. One rather conservative measure of the risk premium that investors might now reasonably require is 4%, based on the longest period of historical data. If investors today adjust their expectations to this 4% level, they will have to bid share prices down by a quarter.

For well over two years, stockmarkets in America have moved broadly sideways (though the technology component has plunged). Surely “fair” values are not far from catching up with depressed share prices? Not quite. Derry Pickford at Smithers & Co, a London consultancy, has looked at stockmarket valuations using Tobin's Q, a measure of the ratio of market prices to the replacement cost of corporate assets. He judges that American shares are still overvalued by more than two-fifths.

Mr Pickford states the bearish case another way. Even if profits were to grow consistently at a real rate of 7% in the years ahead (and that is an optimistic assumption, to say the least), it would take eight years of sideways share prices to bring valuations back into line.

To the extent that European companies have fewer accounting uncertainties than American ones, and their shares are less highly valued, stockmarkets in Europe might have been expected to outperform. Instead, they have fallen in sympathy with American exchanges. Generally, though, European valuations are not as stretched, with p/e's closer to their historical average. In Britain, however, Tobin's Q paints a picture of inflated prices similar to America's.

One of the best guides to the future may be the one that looks farthest into the past. A study by professors Elroy Dimson, Paul Marsh and Michael Staunton of the London Business School (“Triumph of the Optimists”, published by Princeton University Press), analyses a century's worth of equity returns, for 16 countries. One of their conclusions ought to give shareowners consolation: shares do indeed outperform bonds over the long run, in every country studied. Yet their data shows that this happy result does not quite conform to the iron schedule of 20 years, as the current wisdom of American investors has it. In some countries, in some periods, shares have taken as many as 40 years to outperform. That may

be longer than today's investors have bargained for.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Globalisation and freedom

The prosperity league

Jun 20th 2002
From The Economist print edition

How economic freedom is good if you're poor

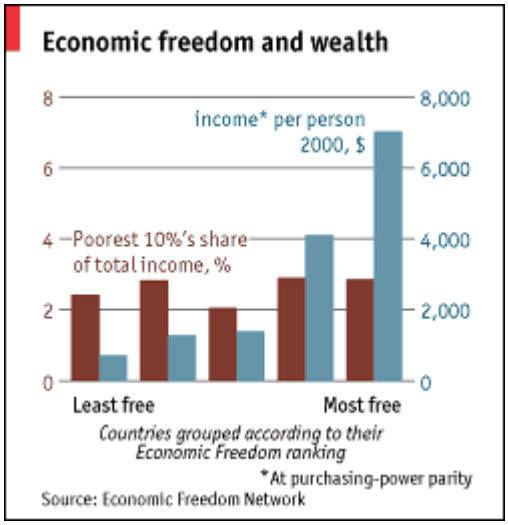
PROTESTERS from the richer bits of the world are preparing to descend on the Canadian Rockies next week, to make mischief at and around the G8 summit. They, along with the world's political leaders and others concerned with economic growth, would do well to give their custom to one locally sourced product: the Fraser Institute's Economic Freedom of the World report, an annual publication that aims to measure economic freedoms in 123 countries. It ranks each country according to how seriously various factors are taken, including small government and low taxes, protection of private property from expropriation and monetary debasement, and the ability to trade freely with other countries.

It is no longer news that these things correlate with wealth and economic growth, but it was once. At a conference in the 1980s, Milton Friedman, a Nobel laureate, asserted that economic freedoms led to greater wealth creation. A colleague stood up and challenged him to prove it. Thus was born the report, which relies on detailed assessments of 37 variables of economic freedom.

This year, some of the usual suspects occupy the top slots, based on 2000 data: Hong Kong, Singapore and America are the top three. At the bottom come such impoverished states as Guinea-Bissau, Myanmar and Congo. Cuba and North Korea, which are almost certainly even less economically free than these, are unranked, for lack of data. Meanwhile, one African country, Botswana, has climbed up the rankings and is now reckoned to be as economically free as France. As you might expect, the countries with the greatest economic freedom saw much higher growth rates, between 1990 and 2000, than their less free peers.

One myth of the anti-free-trade crowd is quickly debunked by the authors. Anti-globalisers, and those merely scornful of Anglo-Saxon capitalism, argue that in liberal countries wealth is concentrated in the hands of a privileged few. Globalisation may lead to riches, but it also leads to such vast inequality that the poor are excluded. The report shows this to be nonsense.

As it turns out, the poorest fifth of the population in all the countries studied receives around 2-3% of national income. This is true (see chart) both for more laisser-faire economies and for more restrictive places where policies are designed, say their leaders, to protect the poor from the forces of globalisation.



The poor themselves are not likely to give thanks for the protection. For the less economically free a country, the worse off are its poorest members. In 2000 the income of the poorest tenth in the least free countries was around $728. Meanwhile, the poorest 10% in the freest countries did nearly ten times as well, with an average income of $7,017. And the elites in the most closed economies take as large a share of national income as those in the freest.

The authors note that, beyond making people richer, economic freedoms also make them politically freer, citing a strong link between economic freedoms and democracy. Hong Kong, as ever, is the exception—though not a willing one—to the rule.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Apartheid claims

Fingering the banks

Jun 20th 2002 | JOHANNESBURG
From The Economist print edition

One lawsuit against sanctions-busting banks will encourage others

Reuters

Off to pick a pocket or two

WHO should pay for over four decades of apartheid in South Africa? A New York lawyer, Edward Fagan, has an answer: foreign banks that co-operated with the regime despite international sanctions. On June 19th he filed a suit in New York against two Swiss banks, UBS and Credit Suisse, and against Citigroup of America. He accuses them of giving loans to the South African government after sanctions were imposed in 1985, helping it to continue to repress the country's black majority. He calls for reparations, which could exceed $50 billion, for victims of the apartheid regime. And he is after other potential defendants, including British and German banks, computer companies and oil, mining and arms firms.

American law allows non-citizens to bring human-rights cases against companies that operate in the United States. But proving they committed a crime will be tricky. Prosecutions of industrialists at the Nuremberg trials suggested that doing business with a nasty regime is not a crime. Loans made to South Africa were legal under the banks' domestic laws. And plenty of other foreign companies, as well as South African ones, dealt with the regime, making it hard to pick on a few as especially responsible.

Mr Fagan is probably not planning to win in court. If he can put enough pressure on the companies, they might strike a deal to make him go away. He is famed for getting German companies and the German government in the 1990s to set up a $5.2 billion fund for slave-labourers in the second world war. Earlier this year Mr Fagan talked of getting tens of billions of dollars from some 60 companies for descendants of slaves in America. In 1998 he persuaded Swiss banks to settle $1.25 billion on Holocaust victims who had lost their savings. He was booed in Zurich (see photograph) when he announced his latest plans to try to milk Swiss banks—“easy targets”, as he admits.

The banks say the suits are preposterous, but they may feel uncomfortable if a movement for reparations gathers momentum. Associates of Mr Fagan opened a telephone hotline in South Africa on June 18th to find volunteers for the class action. Some 500 people phoned within a few hours; almost any black South African could claim to be a victim of apartheid. A better-defined group might be the 20,000 people who testified to the country's Truth and Reconciliation Commission. The South African government has kept its distance from Mr Fagan. But a spokesman insists that “we can't stand in the way of people or their right to seek legal recourse.”

Meanwhile, a group representing the Herero people of neighbouring Namibia, who suffered mass slaughter at the hands of German colonisers a century ago, is going to court to get compensation from German companies that operated there. There could be more to come.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Insider dealing

That Martha moment

Jun 20th 2002 | NEW YORK
From The Economist print edition

Interior information swings into fashion

AP

Martha says sell at 60

MARTHA STEWART made her name out of making the most unpromising situations seem immaculate. But can the billionaire "diva of domesticity" emerge squeaky clean from an insider-trading scandal that has Manhattan's wealthy socialites yapping?

Ms Stewart was hurt by the bankruptcy of Kmart (a big retailer of her branded merchandise) and a critical biography. She is now under investigation for selling shares in ImClone, a biotech firm run by her friend Sam Waksal (who also dated her daughter). The sale came just before the news that the Food and Drug Administration (FDA) had not approved ImClone's cancer drug, Erbitux.

On December 27th 2001, after prosecutors say Mr Waksal knew of the FDA's decision, his father and daughter sold millions of dollars worth of ImClone shares. Ms Stewart sold her 4,000-odd shares. She had, she said, told her stockbroker, Peter Bacanovic, to sell them if their price dipped below $60. Also on December 27th his firm, Merrill Lynch, warned investors of ImClone's possible trouble with the FDA. Its source of information is unclear.

Insider trading is notoriously hard to prove. Typically, guilt requires some form of confession—either unintentionally in a careless e-mail or recorded phone call, or by somebody naming names under pressure from prosecutors. Were Ms Stewart guilty, she might fear what Mr Waksal or perhaps her broker could say. Circumstantial evidence is rarely enough to establish guilt. Even so, how could Ms Stewart, a former stockbroker, have been foolish enough to dump her shares and on the same day phone Mr Waksal (she never got through to him). Contact between a trader and a boss at a sensitive moment invariably sets off regulatory alarm bells. Her face is presumably a tasteful shade of blush.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Central European central banks

Whipping boys

Jun 20th 2002 | WARSAW
From The Economist print edition

Strains between governments and their central banks

CENTRAL EUROPE'S central banks are having a tough time protecting their autonomy. Last week Hungary's central-bank boss, Zsigmond Jarai, and his Polish counterpart, Leszek Balcerowicz, took their governments to task for backing draft laws designed to curb their powers. This follows attempts in the Czech Republic last year to give the government the right to nominate its central bank's board and have a say in setting its inflation target—moves blocked by the constitutional court.

The two recent bills, aimed at strengthening the governments' hand in monetary and exchange-rate policy, may fall by the wayside. Yet they highlight dilemmas faced by Central Europeans as they prepare to get into the European Union. Several countries hope to join in 2004, adopting the euro soon thereafter. Among other things, the EU's Maastricht criteria for euro membership demand low inflation and stable currencies. That means vigilance from central banks, at a time when governments are under increasing pressure to produce economic growth. EU officials leave no doubt where they stand. “Political independence of a central bank is a prerequisite of joining the monetary union,” said Ernst Welteke, a council member of the European Central Bank, this week.

If Central European governments kept a tighter rein on spending, central banks could afford to be less austere. In Hungary, hitherto the region's top reformer, a pre-election giveaway by the outgoing government threatens Mr Jarai's year-end inflation target of 4.5%. The new cabinet also plans a binge. When it submitted an amendment to set up a board to oversee the central bank, and to give the government a voice in exchange-rate policy, Mr Jarai said tartly that fiscal discipline should be the cabinet's chief concern.

Mr Balcerowicz is in choppier waters. Poland's growth has slumped to 1% a year, with unemployment at 17%. The central bank has slashed interest rates as inflation has fallen, to 2%, but real interest rates are still quite high. Blaming the bank's hawkish stance on inflation for prolonging the downturn, the government has lent support to a draft law prepared by its junior coalition partners that would broaden the bank's remit to include promoting growth and fighting unemployment.

The bill would also increase the bank's monetary-policy council, from ten to 16 members, allowing politicians to pack it with doveish appointees. Mr Balcerowicz vigorously objects to the draft legislation. He was stripped of his government security goons last month, such is the enmity between the two sides.

Poland's europhile President, Aleksander Kwasniewski, also opposes the moves and could wield his veto. But now the government is shifting its line of attack from interest rates to the currency, which many economists agree is overvalued. A new task-force on exchange-rate policy, steered by the central bank and the finance ministry, could defuse tensions.

The central bank could always improve its transparency and accountability. It publishes individual voting records of council members, but not the minutes of these meetings, and no inflation forecast is made public. “The Bundesbank model of secrecy doesn't help,” says Andrzej Wojtyna at Cracow's Academy of Economics.

Yet monetary policy is no panacea for the economy's ills. If Poland wants to return to the high growth of the mid-1990s, it needs to speed up structural reforms of its labour and product markets. Besides, why fault Mr Balcerowicz for a poor economy, when he has often cast the deciding vote in favour of a rate cut?

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Japan's bad-loan agency

Garbage in

Jun 20th 2002 | TOKYO
From The Economist print edition

The Irresolution Corporation

Get article background

SOME pin their hopes on the Resolution and Collection Corporation (RCC), the state's loan-collection agency, to help change Japan's awful banks, weighed down by ¥150 trillion ($1.2 trillion) of bad debts. The RCC is modelled on America's Resolution Trust Corporation (RTC), which cleaned up after the savings-and-loan mess in the late 1980s. Sadly, Japan's version is no RTC. That body worked efficiently to clear up problem loans. It had a limited life, after which it was wound up. It brought the problem under control fast, at a cost to the taxpayer that was less than expected. Japan's RCC has fewer resources and less authority in tackling a bad-loan problem that dwarfs any in history.

If the Japanese government chose the right model, it is running the RCC the wrong way, says James Fiorillo of ING, a Dutch bank. The flaws run deep. The RCC—created in 1999 and financed by government-guaranteed bonds issued by its parent, the Deposit Insurance Corporation—does not have a limited life and is under no pressure to act quickly. Though the government set a deadline of March 2004 for it to buy up bad loans, it has not set a date to wind up the RCC. Disposals of bad loans could drag on, at a cost to taxpayers.

With only 2,400 employees, compared with the 8,000 that the RTC had, the RCC also lacks resources. Most of its staff come from the bust financial institutions that generated the bulk of the bad loans in the first place; many of the rest are former bureaucrats. Since unemployment is rising among white-collar workers, they have no incentive to finish the job and lose theirs.

The RCC has few good assets with which to dilute the bad. It took over some ¥5 trillion of bad loans from bankrupt mortgage companies and banks, and has recovered about half of these. Yet unlike its American counterpart, which took over all assets, good and bad, of bust savings-and-loans, the RCC got only the bad bits that new owners of bust banks did not want. That makes it harder to group assets, by geography or industry, into attractive packages for securitising or selling in bulk.

Instead of fixing these flaws, politicians have attacked the RCC for offering banks prices for distressed debt that are supposedly below market value. How else, they ask, could the RCC have spent ¥39 billion on bad loans recorded on banks' balance sheets as worth over ¥1 trillion—a mere 3.9% of their recorded value? This ignores how banks have notoriously overvalued collateral, and how the RCC took on many of the very worst assets, such as buildings in which gangsters have squatters' rights. The RCC has made little profit, if any, on these assets. Besides, banks have always been free to take rival bids for their loans from private institutions.

There is indeed no shortage of private companies keen to buy bad loans from banks—at the right price. Since 1999, when they were allowed to apply for licences, some 60-odd firms, including foreign investment banks such as Morgan Stanley and Goldman Sachs, have competed with the RCC to buy bad loans from banks.

Does Japan even need an RCC, then? Not in its current form. Still, one politician in the ruling Liberal Democratic Party, Yasuhisa Shiozaki, believes that a reformed RCC could play a role in restructuring banks and their equally wobbly borrowers. It could, he says, buy blocks of debt in rotten companies and then force needed changes on the companies—even outsourcing debt workouts to specialist foreign institutions. Banks, he says, should be made to sell many

Does Japan even need an RCC? Not in its current form

more of their bad loans to the RCC. If that means more losses for the RCC, then the banks' shares could be transferred to the government, in effect nationalising them.

Foreign bankers agree that the RCC might have a role as a warehouse for bad loans. They say that it should not attempt, as it is now doing, to restructure companies itself, as this can take years (and expertise that the RCC lacks) to complete.

No matter how the RCC might be reformed, it will be unable to help solve the problem of Japan's bad loans until the banks themselves are forced to act. Yet they fear that selling or writing down more bad loans would leave them badly under-capitalised or even bust. Suggestions that the government should sweeten the sales by buying loans at a premium make little sense. That would be an indirect injection of public funds—which the government has spent the past two years denying the banks need anyway.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Economics focus

In praise of common sense

Jun 20th 2002
From The Economist print edition

What light does the modern theory of portfolio choice shed on the decisions of ordinary investors?

AT FIRST glance, the gap between finance theory and the advice typically offered to ordinary investors seems wide. The rules of sound investing, as laid down by most advisers (salesmen) working for banks, insurance companies and the rest, or by personal-finance pundits in the media, suggest that these experts have been too busy to open chapter one of any post-1950s finance-theory textbook.

Good news: it may not matter. The advisers' common sense has more going for it than you might imagine. It turns out that more advanced theories—which few economists, never mind investment advisers, have bothered to understand—endorse some of the salesmen's favourite rules of thumb, albeit for reasons unsuspected in head office.

The basic framework for modern finance theory is mean-variance analysis. This allows different investments to be compared in terms of the trade-off between expected reward (measured by mean return) and risk (measured by the variance of returns). An investor who cares only about these two properties will always prefer an investment that offers the highest mean return for any given amount of risk.

That may seem obvious—but it has some surprising implications. Cranking through the algebra—take this on trust—it follows that all investors will choose the same combination of risky assets. To the extent that investors differ in their fondness for risk, they will mix different amounts of zero-risk “cash” (short-term money-market instruments, such as treasury bills) with their chosen bundle of risky assets—shares and bonds. But the proportions of shares and bonds in the risky part of the portfolio will be the same for all. This is flatly at odds with the advice that is always offered to conservative (risk-avoiding) investors: hold more bonds and fewer shares.

Another article of faith for investment advisers is that young people saving for retirement should, other things equal, take more risk and hold more stocks than old investors. The idea is that time lets you ride out the ups and downs of the stockmarket. This is also the rationale for “buy and hold”—the stockmarket strategy often recommended to small investors.

Again, according to the basic theory, this is wrong. In the standard model, assuming among other things that the risk and return properties of different assets do not change, the investment horizon is irrelevant. The long-term investor should choose the same bundle of assets as the short-term investor.

So investment advisers don't know their theory of portfolio choice. Never mind. In “Strategic Asset Allocation” (published by Oxford University Press), John Campbell and Luis Viceira of Harvard University guide the reader (who will need a bit of maths) to the frontiers of pure and applied portfolio choice. Lo, much of the standard advice is redeemed.

First, cash is not riskless for the long-term investor, as the basic model assumes. This is because of uncertainty over the rates at which treasury bills and the like will have to be rolled over. The safe asset for a long-term investor is an index-linked long-term bond—or, if inflation risk is low, a long-term nominal bond. Just as cash varies in the simple model to accommodate different preferences for risk, the proportion of indexed bonds varies in a cleverer model for the same reason. The standard advice on asset allocation for conservative investors turns out to be not too bad.

Second, shares are indeed safer over the long term than over the short term. Why? Because the evidence suggests that stock returns are somewhat predictable from dividend yields and other market information. Returns are mean-reverting: expected returns are lower when the market has recently done well, and higher when it has done badly. This mean-reversion violates the model's assumption of constant investment opportunities. And it lowers the risk of holding stocks over the long term. The investment advisers' guidance is vindicated again.

Here, though, comes a catch. The property that makes shares safer in the long than in the short term—mean-reversion—also refutes the rationale for “buy and hold”. In principle, the wise long-term investor should try to time the market, exploiting information in the history of share prices. Reduce your equity holdings at times (such as now) when prices are historically high in relation to dividends, and increase them when prices are low.

A third and very important complication also ignored by the simple model is that most investors have other sources of wealth—in particular, income from employment. This is equivalent to the income from a relatively safe financial asset, but with a twist. Its amount varies according to the investor's age: expected lifetime income from work is high when investors are young and dwindles to nothing at retirement. This means that the composition of wealth changes over time, even if choices about allocating financial assets stay the same. The long-term investor needs to rebalance his financial assets accordingly.

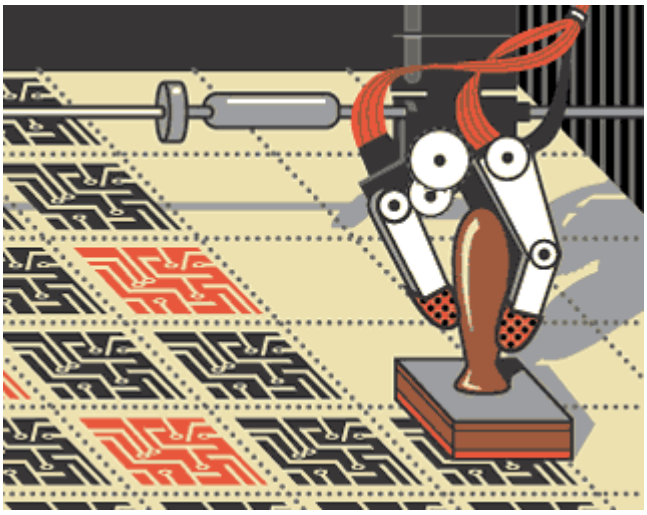
Labour income makes holding riskier assets more attractive, and the younger the investor, the stronger this effect. So the advisers are right again, even if they do not know why: young investors with secure jobs ought to be especially keen on investing in shares. Older investors, as well as investors with insecure jobs and investors with wages that are highly correlated with stockmarket returns, should be more conservative. Investment bankers fall into the last two categories, implying, paradoxically, that they should be among the most boringly cautious investors of all. So all is not lost: the theory does give one cliché a beating. “Leave stocks and shares to the professionals” is bad advice for professionals and amateurs alike.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Chip making

Stamping on tradition

Jun 20th 2002
From The Economist print edition



A new way of making silicon chips has been invented

SILICON VALLEY folklore has it that, as soon as Gordon Moore, a founder of Intel, worked out his famous "law"—that the number of transistors which can be fitted on to a silicon chip doubles every 18 months—one of his investors discerned a less agreeable trend. According to Mr Moore, it was Arthur Rock, Intel's first venture capitalist, who realised that the cost of building a chip factory, or "fab", appeared to double every four years. If Rock's law continues to hold, by the end of the decade the cost of a fab will exceed $50 billion.

These soaring costs seem inevitable so long as chip makers use a complicated process known as photolithography to make transistors and wires on silicon. This technology relies on the use of tightly focused beams of light to print patterns on to wafers of silicon. It also requires the use of multiple chemical steps (photograph-like development, etching and cleaning) to turn those patterns into components. And to make smaller components means the light must be focused with greater precision, which costs still more.

In this week's *Nature*, a group of electrical engineers at Princeton University propose a new technique that could avoid the problem entirely. If this technique turns out to be as cheap and fast as they hope, it will herald the future success of Mr Moore's prediction—and, with luck, the failure of Mr Rock's.

Stephen Chou, Chris Keimel and Jian Gu think it is possible to stamp minute features on to melted silicon, just as a seal is stamped on to softened wax. To perform their trick, which they have dubbed "laser-assisted direct imprint" (LADI), they first construct a mould with the desired pattern of shapes on its surface, out of a piece of quartz. Then, they place the quartz mould on top of a wafer of silicon and press the two together. Finally, they shine a laser beam through the mould to the silicon. This melts a thin layer of the silicon's surface. (The mould is unaffected by the laser beam, because the light is not at the right wavelength to excite electrons in quartz's structure.) Within 250 billionths of a second, the terrain of the silicon can be sculpted into trenches, mesas and ridges. And unlike photolithography, this is a one-step process.

Breaking the mould

These structures, the researchers found, show an extraordinary level of detail—far more than it would be possible to create, in a reliable fashion, using photolithography. This is because the minimum size of feature that can be made by photolithography is limited by the wavelength of the light used. The shorter the wavelength, the finer the features—but only up to a point. Despite the fact that extremely short wavelength ultraviolet light is employed in modern fabs, engineers think that it will be impossible to sculpt features smaller than 100 nanometres (billionths of a metre) across in this way.

When Dr Chou and his colleagues examined their results, however, they found that their technique outstripped the limits of photolithography by a full order of magnitude. It turned out that ten-nanometre ridges present in the quartz mould were transferred intact to the surface of the silicon. Once they perfect the use of LADI to build layered structures on silicon, it may be possible to use the technique to cram 100 times more transistors on to a chip than the present limit allows.

Two obstacles remain to be overcome. First, making a quartz mould with sufficiently small and precise features is hard. But Dr Chou says that electron-beam lithography, which resembles photolithography but uses short-wavelength electrons rather than light, is exact enough to produce a suitably detailed mould. Electron-beam lithography cannot be employed to make the chips directly, because it is too slow for use in mass production. But that does not stop its use for creating “bespoke” items such as moulds.

Second, to perform LADI on a 300mm-diameter silicon wafer of the sort used in modern fabs would require a laser beam of the same diameter. The equipment needed to generate this beam would be both expensive and delicate. Still, the cost could hardly be more forbidding than that of a fab capable of building comparable circuits by conventional means. Perhaps now would be a good time for Dr Chou to come up with a law of his own, before some venture capitalist beats him to it.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Exploring comets

The first shall be last

Jun 20th 2002
From The Economist print edition

A series of probes to comets may reveal more about the solar system's origins

IF ALL goes well, the next decade will prove to be a golden age of cometary exploration. Four missions should rendezvous with comets. One will return the first sample of cometary dust to earth; another will become the first to orbit and land on a comet; a third will blast a hole in its cometary target's surface. And on July 1st, NASA, America's space agency, plans to launch a mission that will, in a rather gentler way, fly past at least two comets over the next five years.

This mission, the Comet Nucleus Tour (CONTOUR), will carry out the closest flypast of a comet so far. It will head first for comet Encke, coming within 100km of it on November 12th 2003. Next, it will meet comet Schwassmann-Wachmann 3, on June 19th 2006. With luck, it will then go on to visit a third comet—though which one has yet to be decided.

CONTOUR's two definite targets are very different. Encke is a “toughened, old comet”, as Donald Yeomans, a researcher at NASA's Jet Propulsion Laboratory, in Pasadena, puts it. It goes around the sun every 3.3 years, and has probably been doing so for a long time. Schwassmann-Wachmann 3, by contrast, is a “young, fragile object”. So fragile, indeed, that it split into three bits in 1995. That means that CONTOUR will be able to explore the interior of this comet, as well as its surface. The probe will also make chemical analyses of the gas and dust that surround the comets.

CONTOUR is only the start. Next January, the European Space Agency (ESA) plans to launch its *Rosetta* mission. *Rosetta* is due to rendezvous with the enticingly named comet 46 P/Wirtanen in 2011. If all goes well, it will even land on it. Also early next year, NASA will launch *Deep Impact*. On July 4th 2005, America's celebration of its successful rebellion against British rule should be enlivened by the firing from this probe of a 370kg missile. The result will be a football-field-sized, seven-storey-deep crater in comet Tempel 1. That should reveal what goes on in the core of a comet.

Last but not least, NASA's *Stardust* mission will, in 2004, meet comet Wild 2, and attempt to collect some dust from its vicinity. *Stardust* (which was launched in 1999) should become the first probe to retrieve material from beyond the orbit of the moon, when a re-entry capsule parachutes the samples back to earth in January 2006.

The question “why”?

One of the reasons for all this interest is that comets are primitive, cosmic leftovers. When the solar system was forming, around 4.6 billion years ago, they were among the bits that did not become planets. Because they were never subject to the kinds of thermal and chemical change that happen on planets, their cores of ice and rock are, in a sense, time capsules that can be used to find out more about conditions in the early solar system. For example, many astronomers believe, on the basis of chemical evidence found in meteorites, that a supernova explosion occurred near the nebula from which the sun formed, just before the process of formation started. Indeed, it may have triggered the nebula's collapse into a star. Analysing the composition of comets could provide further proof of this theory.

Besides providing a better understanding of the solar system as a whole, comets may be able to answer specific questions about the early history of the earth. One is whether much of the water in the earth's oceans, and the original gases in its atmosphere before life got to work on them, were “plastered” on to the planet by collisions with comets, rather than emerging from its interior through volcanic vents.

Again, this is a question that will be tackled by looking for tell-tale chemicals. If the water found on comets contains an earth-like ratio of deuterium (a form of hydrogen that has a heavy nucleus) to ordinary, light hydrogen, that would favour the plastering theory. Previous measurements by ESA's *Giotto* mission to comet Halley suggested that the cometary ratio is skewed more heavily towards deuterium than that on earth, and thus that the plasterers are wrong. But both Encke and Schwassmann-Wachmann 3 belong to a different class of comet from Halley, so the answer they provide may be different.

A more intriguing area that these missions are meant to cast light on is the origin of life—or, rather, the chemical precursors of life. Comets contain amino acids, which are the building-blocks of proteins. If comets ever did contribute to the earth's oceans, they may have brought part of the complex carbon-based chemistry of life with them. Paul Mahaffy, a CONTOUR scientist at NASA's Goddard Space Flight Centre, says that the big question is exactly how complex the molecules on comets actually are. The instruments on CONTOUR, and other missions, will analyse dust for carbon-based molecules, and should thus be able to provide an answer.

There may, however, be a more prosaic reason for the sudden interest in comets: most other bodies in the solar system have been explored already. All the planets save Pluto have been visited by at least one spacecraft. So have many of the bigger moons, and several asteroids. With the arguable exception of studies of Mars, deepening knowledge about the solar system is not as glamorous an activity as widening it. Hence the search for new targets, even if they are mere leftovers from the kitchen that created the main cosmic banquet.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Extrasolar planets

Nativity story?

Jun 20th 2002
From The Economist print edition

Astronomers may have stumbled on the birth of a solar system

WHY do stars twinkle? It is because they are so distant that they are, in effect, point sources of light, whose rays are easily diverted by small disturbances in the earth's atmosphere. Some stars, however, twinkle more than others. The strangest example of a star's twinkling was described this week by two astronomers at the Scientific Frontiers in Research on Extrasolar Planets conference in Washington, DC. The star in question, KH 15D, is a young, sun-like star in the constellation of Monoceros. Its twinkling is significant because it could provide clues about the mechanism of planetary formation around young stars.

The astronomers, led by Catrina Hamilton and William Herbst of Wesleyan University in Middletown, Connecticut, have been monitoring KH 15D's brightness since the late 1990s, when they first noticed that it was “winking”. Sometimes the star would shine normally; on other nights it would all but vanish. Repeated observations established that it goes dim for 18 days every 48.3 days. This means that something is orbiting the star and obscuring its light.

That is not unusual: so-called “eclipsing binaries” consist of two stars, whose combined brightness, viewed from earth, varies regularly. But KH 15D goes dim for such a large portion of its cycle that it cannot be an eclipsing binary. Only a collection of dust, rocks or perhaps asteroids—a lumpy “circumstellar disc” of matter spread around the star, seen edge-on from earth—can account for its curious twinkling.

At around 3m years of age, KH 15D is a real youngster, so the presence of a circumstellar disc of debris, left over from its formation, is not surprising. Such discs, which provide the raw material from which planets form, are known to exist around other stars. But the mechanism that triggers planetary birth is still unclear. Do planets gradually grow around a rocky core, or can gas giants form spontaneously from lumps in the disc? A further mystery is how planets, once formed, end up in their final orbits around their parent stars. Gravitational interactions between the planets and the remains of the circumstellar disc are thought to play a role.

KH 15D may help to cast light on these mechanisms. Further observations carried out by astronomers in Uzbekistan, Israel and Germany suggest that there are actually two clumps of matter orbiting the star, each with a period of 96.7 days. According to calculations by Doug Lin, an astronomer at the University of California, Santa Cruz, such a configuration is consistent with a large, unseen body “shepherding” the debris, and keeping it organised. Whether the shepherd is a large planet or a small “brown dwarf” star is unclear. But a single orbiting object, calculates Dr Lin, could cause symmetrical clumping on either side of the disc.

Even more intriguingly, the pattern of KH 15D's twinkling seems to be changing slowly. That suggests the interaction between the disc and the shepherd body is still going on. The system could thus provide astronomers with invaluable information about planet-disc interaction, suggests Alan Boss, a leading planet-formation theorist at the Carnegie Institution in Washington. “I think Nature has decided to be kind and give us a system to study that may prove to be a Rosetta Stone,” he says. Now astronomers simply have to follow the star.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Memory formation

Learning in your sleep

Jun 20th 2002 | SENDAI, JAPAN
From The Economist print edition

Researchers can now watch the brain as memories are stored within it

BEFORE a big exam, a sound night's sleep will do you more good than poring over your textbooks. That, at least, is the folk wisdom. And science, in the form of behavioural psychology, supports that wisdom. But such behavioural studies cannot distinguish between two competing theories of why sleep is good for the memory. One says that sleep is when permanent memories form. The other says that they are actually formed during the day, but then "edited" at night, to flush away what is redundant.

To tell the difference, it is necessary to peer into the brain of a sleeping person, and that is hard. But after a decade of painstaking work, a team led by Pierre Maquet of the Cyclotron Research Centre at Liège University in Belgium has managed to do it. Dr Maquet and his colleagues have persuaded enough people to fall asleep inside a noisy, cramped brain-scanning machine to collect the evidence needed to show what is happening. Steven Laureys, one of Dr Maquet's collaborators, revealed their results to a meeting of the Organisation for Human Brain Mapping in Sendai, Japan, earlier this month.

The particular stage of sleep in which the Belgian group is interested is rapid eye movement (REM) sleep, when brain and body are active, heart rate and blood pressure increase, the eyes flick back and forth behind the eyelids as if watching a movie, and brainwave traces resemble those of wakefulness. It is during this period of sleep, usually lasting between 10 and 25 minutes, that people are most likely to relive events of the previous day in dreams—although somewhat mysteriously (if dreaming is involved in the laying down of memories), they rarely remember the dreams themselves.

Dr Maquet used positron-emission tomography (PET) to study the brains of people as they practised a task during the day, and as they slept during the following night. The task required them to press a button as fast as possible, in response to a light coming on in one of six positions. As they learnt how to do this, their response times got faster. What they did not know was that the appearance of the lights sometimes followed a pattern—what Dr Laureys refers to as an "artificial grammar". Yet the reductions in response time showed that they learnt faster when the pattern was present than when it was not. In other words, they were learning without being aware of it.

The PET scans revealed that the cuneus—a small structure at the back of the brain—was active during both the four-hour training period and subsequent REM sleep, but not in any other stage of sleep. The scans, however, revealed significantly less activity in the cuneus during REM sleep in those who had seen randomly flashing lights than in those who had learnt the artificial grammar.

What is more, the grammar-learners, unlike those exposed to the random pattern, showed an increase in activation in brain areas distantly connected to the cuneus, such as the caudate nucleus, a structure already known to be involved in grammar and sequence learning. Those with more to learn (ie, the artificial grammar, as well as the mere mechanical task of pushing the button) have more active brains. The "editing" theory would not predict that, since the number of irrelevant stimuli would be the same in each case. And to quash any lingering doubts that the experimental subjects were learning as opposed to unlearning, their response times when they woke up were even quicker than when they went to sleep.

The team therefore concluded that the neural connections involved in memory are reinforced through reactivation during REM sleep, particularly if the brain detects an intrinsic structure in the material being learnt. So now, on the eve of that crucial test, maths students can sleep soundly in the knowledge that what they will remember the next day are the basic rules of algebra and not the incoherent babble from the radio next door.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Contemporary art

Blue days

Jun 20th 2002 | KASSEL
From The Economist print edition

Anxiety about migration, displacement and globalisation are the main themes at Documenta 11*, the world's biggest contemporary-art show

JORGE LUIS BORGES liked to tell a story about a café in Buenos Aires with a door that opened on to a street in Prague, which, if followed to the end, led you to Piazza Navona. Borges was making a point about a geography marked by culture and imagination, rather than one that respects borders. Documenta 11, the world's biggest contemporary-art exhibition, has set itself much the same task.

Its artistic director, Okwui Enwezor, a Nigerian-born critic and curator based in New York, has fixed his eye on a post-colonial society in which nations are increasingly intertwined. No longer can the globe be divided into first world and third; the East is not the elsewhere of the West. With six other curators from around the world, Mr Enwezor has made a point of finding artists who ask questions about borders, migration and displacement, who look at how words and images translate from one culture into another and who, covertly and overtly, are critics of globalisation.

Documenta was founded in 1955 to exhibit avant-garde artists to a Germany that had been starved of culture. This huge event now takes place every five years, takes over several venues in Kassel, requires at least two days to visit and exhibits the work of more than 100 artists to nearly 1m visitors.

The 21st century's first Documenta reflects on the modern danger of image overload and what it can do to the human psyche. No artist does this more powerfully than Alfredo Jaar, a Chilean, whose “Lament of the Images” uses poetic text projected on a wall to conjure up images in our minds. One describes the prisoners on Robben Island breaking rocks under the glaring sun and literally burning their eyes; when Nelson Mandela was released from there he had lost his ability to cry. Jeff Wall's life-size photograph, “Invisible Man”, also tries to show what cannot be seen or said. The Canadian artist tips his cap at Ralph Ellison's 1952 classic novel in which the protagonist's basement flat in Harlem was lit by 1,369 light bulbs, enough to remind him that in the world he inhabited black men were invisible, a phantom other of mainstream white culture.

In his film, “Western Deep”, Steve McQueen, a British artist, travels to the bottom of one of South Africa's deepest gold mines. As the lift falls further and further, the viewer too is plunged into darkness and silence. Sharp shocks of sound and flashes of light leave you squinting, struggling unsuccessfully to see more—and, after 20 minutes, physically shaken.

In “The 4 Seasons of Veronica Read”, one of Documenta's hits, Kutlug Ataman, a Turkish film-maker-turned-artist, follows an obsessive British horticulturalist who keeps the national collection of Hippeastrum bulbs at home. A circle of four screens, one for each season, allows the viewer to walk in and out of the lives of the bulbs and their grower. By turns a hilarious and moving portrait of obsession, Mr Ataman's film holds its audience transfixed. The flower reproduction scene—in which Miss Read licks nectar off her finger, sighing “delicious”—is a singularly erotic moment in a show strangely devoid of sex.

The arbitrary and often cruel nature of borders concerns many artists here. From India, Amar Kanwar's “A Season Outside” films life on both sides of the 12-inch white line that divides Pakistan and India, while Pavel Braila's quietly mesmerising film, “Shoes for Europe”, focuses on the trains that cross the border from his native Moldova into Romania, changing wheels as they pass from the old Russian gauge to the western standard one, a metaphor for the transition between East and West.

Given Mr Enwezor's African roots, it is no surprise that African artists have a powerful presence here. One room is covered in the vibrant and idiosyncratic alphabet of an Ivorian artist, Frédéric Bruly Bouabré, who has been working since the 1940s on the idea of the world as one huge text, in which everything is somehow connected. Mr Bouabré has recorded an oral history of his Bété tribe with hundreds of small, colourful pictograms in ballpoint, ink and pencil on cardboard, interpreting everything from world history to the movement of the heavens. On a more flamboyant scale, the architectural models of Bodys Isek Kingelez, from Democratic Republic of Congo, with their phantom African cityscapes—a sort of Las Vegas on speed—show an artist who regards European modernism as supremely exotic.

On Kawara, a Japanese artist, has created a rare moment of calm in an otherwise turbulent exhibition. He takes time itself as his subject, and in “One Million Years” has made a typewritten record of every year, from 998,031BC on, read by two people in a perspex case. We cannot stop the inexorable sweep of time, he says, but we can inflect it with a human voice and touch. In a similar vein, Maria Eichhorn, from Germany, focuses on the corporation. With an annual grant of *euro*50,000 ($47,000) from the Documenta Foundation, she has set herself up as a public limited company that does not tolerate profit, thus perverting one of the basic principles of capitalism. In this surreal work, made entirely out of company documents, she asks who wields the most power: the company or the people who run it?

Ms Eichhorn and her co-exhibitors are not crypto-communists. Rather they express a profound anxiety about a global capitalism that, they believe, all too easily homogenises human expression. Like much politically engaged art, not everything here succeeds: many works are heavy-handed and the flashes of aesthetic revelation are rare. But the best pieces show that artists can still be the bards of society. Listen, look and learn.

“Documenta 11”, Kassel, until September 15th. Catalogue: Hatje Kantz Publishers; 744 pages; *euro*55.00 (Distributed in the United States by DAP; $60, and in Britain by Art Books International; £45)

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

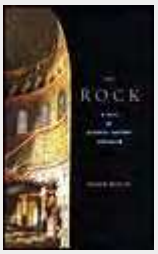
The moneying of America

Holy grails

Jun 20th 2002
From The Economist print edition

MANY critics have taken a poke at the wild triumphalism that afflicted American commentators as the millennium approached. The Internet and the stockmarket between them would create a new economic heaven and a new political earth. Business cycles would be a thing of the past. The Dow would soar to 36,000, or whatever figure, pulled out of the air, would sell stocks, and books. And it wasn't just the market gurus who exuded irrational exuberance. Bill Clinton himself, in his millennial state-of-the-union message, spoke as if American capitalism had repealed the laws of economic gravity, and American democracy had discovered the philosopher's stone.

Wealth and Democracy: A Political History of the American Rich
By Kevin Phillips



Broadway Books; 474 pages; $29.95
Constable & Robinson; £14.99

Buy it at
Amazon.com
Amazon.co.uk

Now things look very different. The events of September 11th diverted attention from the political implications of the dotcom collapse and the worrying irrelevance of the 2000 presidential election. Along comes Kevin Phillips—with the intellectual force of a great advocate and the moral fervour of an Old Testament prophet—to demolish the foolish credulity of the markets and the self-interestedness of the politicians.

"The numbers are stark," he says as he nails down the foundation of his argument: the boom of the 1990s enriched only the few. "The top 1% pocketed 42% of the stockmarket gains between 1989 and 1997, while the top 10% of the population took 86%." He shows with equally incontrovertible numbers that in every way, America has been experiencing, not widely distributed prosperity, but an unprecedented increase of inequality. If 40% of Americans owned stock, over half of those who did had only a trivial stake, worth less than their cars.

Even before September 11th, politicians who were obsessed with raising money from the few who had benefited from the boom failed to address the issue of burgeoning inequality. It wasn't only President Bush or the former vice-president, Al Gore. "What McCain and Bradley did not do was draw connecting lines, directly and boldly, between tainted government, corrupted politics, corporate venality and the unprecedented two-decade build-up of wealth itself." Inequality has also been increased by sky-high executive pay and by tax cuts, and the political system has not responded as it did in the Progressive and New-Deal eras. How so few garnered such a large proportion of the increase in incomes is something that went "essentially unremarked upon".

AP

Still waiting for largesse

Mr Phillips is no conventional man of the left. It was he who first predicted an "emerging Republican majority", based on the Sunbelt, in 1968; he who forecast the hegemony of the new conservatism. By 1990, with "The Politics of Rich and Poor", he had already moved leftward, or rather to a personal, populist radicalism.

Now he examines the excesses of the 1990s through two historical lenses. He compares plutocracy in modern America to its forerunners in 17th-century Holland and 19th-century Britain. But he also compares it to earlier American eras. Along the way he demolishes many myths. Above all he shows how American wealth has always owed as much to government and to friends in high places as it has to free markets or genuine competition. He compares the government's largesse to the railroads, the biggest

source of wealth in the Gilded Age, to the dotcom barons' debt to government investment in research.

He concludes with a challenge that even those who find his argument irritating will find uncomfortable. “The imbalance of wealth and democracy in the United States”, he says, “is unsustainable.” Democracy must be renewed, or it will be replaced by an undemocratic plutocracy. American exceptionalism, he says, by which he means the exceptional promise of American life, faces its greatest test. It must persuade Americans to continue to believe in a system that in the past 20 years, he believes, under Democratic and Republican administrations alike, has been ruthlessly pillaged by the few at the expense of the many.

Wealth and Democracy: A Political History of the American Rich.
By Kevin Phillips.
Broadway Books; 474 pages; $29.95
Constable & Robinson; £14.99

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

The Spanish civil war

Bravehearts

Jun 20th 2002
From The Economist print edition

HOW many people could name a woman who took part in the Spanish civil war, other than perhaps Dolores Ibarruri, *La Pasionaria*? In choosing four forgotten figures—two Spaniards and two English, one of each pair on opposing sides—Paul Preston shows how deeply women were involved in serving and suffering with their men on both sides of the divide, and with each story he tells he adds to our knowledge of the divide itself.

The least interesting—certainly the least intelligent and idealistic—is Priscilla Scott-Ellis, who at the age of 20 fell in love with a Spanish prince known as "Touffles". She followed this "begoggled, mother-ridden poop", and, when he refused to marry her, enlisted under the nationalist banner as a nurse, working in war hospitals in "an eternal whorl of blood, pain and death" from which she never really recovered.

Nan Green also nursed in Spain. Disguising her background, she joined the British Communist Party in the early 1930s. She left behind two small children, and travelled to Spain to join her husband who was killed fighting on the Ebro in 1938. Brisk, efficient and dedicated—"My heart became a clenched fist," she used to say—Green exorcised her grief through a fierce commitment to the party that continued long after she returned to Britain.

Doves of War: Four Women of Spain
By Paul Preston

HarperCollins; 469 pages; £16.99. To be published in the United States by Northeastern University Press in spring 2003

Buy it at
Amazon.co.uk

Mercedes Sanz-Bachiller also turned from being a comfortable property owner to one of the most important women in Franco's Spain after her right-wing husband was killed at the start of the civil war. She helped found a welfare organisation, based on the Nazis' Winter Help scheme, to care for war orphans irrespective of their origin. By maintaining a close connection with the Catholic church, Sanz-Bachiller turned Auxilio Social into one of Spain's most effective charitable operations. But she also aroused great envy, and her chief rival, Pilar Primo de Rivera, sister of the founder of the Falangists, was particularly influential in seeing that her work was forgotten by history.

The most remarkable of the four is the tempestuous Margarita Nelken, a brilliant Jewish intellectual who distinguished herself as an art critic, feminist, polemicist and politician. Though she would suffer greatly afterwards, Nelken's finest moment came when she stayed on in Madrid, after the government had fled, to organise the resistance.

"Doves of War" salutes another book about four women who were irrevocably changed, this time by the Middle East. Lesley Blanch's "The Wilder Shores of Love" came out in 1954. Mr Preston will surely be hoping for a similar success; it has never been out of print.

Doves of War: Four Women of Spain.
By Paul Preston.
HarperCollins; 469 pages; £16.99. To be published in the United States by Northeastern University Press in spring 2003

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

New fiction from the Middle East

Rock of all ages

Jun 20th 2002
From The Economist print edition

1,400 years ago Jerusalem was a peaceful city. A new novel describes how

ONLY under Arab-Muslim rule, which began in the 7th century, were the three monotheistic faiths in Jerusalem able to co-exist in relative peace. The Muslim overlords respected the Holy Sepulchre—the Christians' most sacred shrine—while adopting many Jewish beliefs about the Rock, about half a mile to the east, where the Jewish temple had once stood. Like the Jews, the Muslims came to see the Rock as a meeting point between God and Man, the centre of the earth, the origin of all fertility. In 688, Caliph Abd al-Malik began building the Dome of the Rock, which still stands on that site today.

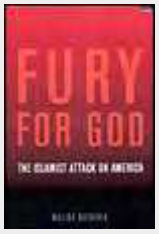
These historic events form the background to this short, arresting historical novel, written almost as a prose poem, which recounts the Dome's construction from the viewpoint of one of the Caliph's advisers, who is of Jewish origin but has adopted the new Muslim creed.

By interweaving narrative with extracts from the Koran and other religious poetry, Kanan Makiya, an Iraqi-born author living in America, tries in a subtle way to make the argument that the "raw material" of religious faith—stories, images, rituals, sacred buildings, holy sites—can draw the adherents of different religions together, as long as the inner meaning of this material can be accurately discerned.

"A thing belongs to the one who remembers it most obsessively," the narrator muses. "Only through such remembering can we defend mystery against the sorcery, worship the incomprehensible while rejecting the absurd and separate out of the inexplicable what is necessary and true." Can we really tell what a Jerusalemite would have thought 1,400 years ago? Still, Mr Makiya's words are a bracing challenge to followers of all great religions in our own age, which is so dominated by sceptical materialists on one hand and shrill neo-fundamentalists on the other. These two schools of modernism have something in common—a failure to acknowledge any other kind of meaning but the literal and superficial. Mr Makiya's work is a powerful antidote to them both.

The Rock: A Tale of Seventh-Century Jerusalem.
By Kanan Makiya.
Pantheon Books; 349 pages; $26.
Constable & Robinson; £14.99

The Rock: A Tale of Seventh-Century Jerusalem
By Kanan Makiya



Pantheon Books; 349 pages; $26.
Constable & Robinson; £14.99

Buy it at
Amazon.com
Amazon.co.uk

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Militant Islam

Rages of fear

Jun 20th 2002
From The Economist print edition

CAN mainstream Islam be separated from the lunatic fringe? Not altogether, according to this latest book on the causes of September 11th. Malise Ruthven, a British academic and occasional contributor to this newspaper, argues that Islam, like Christianity and Judaism, contains within itself the seeds of extremism and violence. To argue, as apologists do, that *jihad* means no more than intellectual striving, simply does not wash.

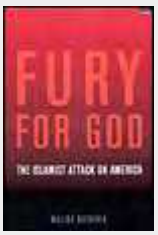
The strength of this book, part journalism and part scholarship, is that it seeks to understand militant Islam without indulging in special pleading or political correctness. It analyses the early debates about *jihad* among Muslim scholars, and then dwells in detail on the man who gave the term a new meaning in the Islamist lexicon. Sayyid Qutb was a Muslim Brother who was imprisoned and executed in the 1960s by Gamal Abdel Nasser. Mr Ruthven describes the experience which radicalised Qutb, a visit to America in 1949, as “the defining moment or watershed from which the ‘Islamist war against America' would flow”.

There is much in this account to discomfit Muslims and non-Muslims alike. Muslims may bridle at the view that Qutb and other Islamists were unsettled by the open female sexuality they encountered in the West; this triggered what he calls the “repulsion of attraction”. They may also object to his use of the term “Islamo-fascism” to describe elements in the Islamist tradition. But Mr Ruthven also points out that the apocalyptic visions of the “end of time” in which Christian fundamentalists such as Pat Robertson believe are not so far removed from Osama bin Laden's millennarian fantasies.

Here is an author who does not hide his opinions. He refers to those “three contemporary monstrosities”—Rupert Murdoch, McDonald's and Madonna. He is a critic of Israel's treatment of the Palestinians, but also of what he calls Saudi “religious imperialism”. He finds the West guilty of humbug in acting decisively against the oppressive puritanism of the Taliban, while indulging the all-too-similar austerities of Saudi Wahhabism. Although this book was written, as its author acknowledges, in the “heat of the moment” between last October and February this year, it provides valuable insights into the mind of radical Islam.

A Fury for God: The Islamist Attack on America.
By Malise Ruthven.
Granta; 324 pages; $16.95 and £15

A Fury for God: The Islamist Attack on America
By Malise Ruthven



Granta; 324 pages; $16.95 and £15

Buy it at
Amazon.com
Amazon.co.uk

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

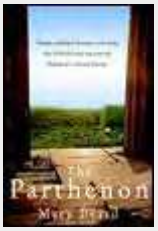
Classical antiquity

Stones of contention

Jun 20th 2002
From The Economist print edition

THE entire temple of Athena the Virgin Goddess on the Acropolis at Athens, along with its sculptures and fitments of bronze, ivory and gold, was quarried, shaped, cast and built in a mere 14 years in the 440s and 430s before Christ. Not much more than a century later, Demetrios, a Macedonian warlord, was already using the Virgin's inner sanctum as the venue for sexual orgies on a grand scale. This is just one of the many uses to which this iconic building has been put, vicissitudes which are traced with verve and erudition by Mary Beard in this highly readable book, the first in a new series on ancient buildings, which Ms Beard is also editing.

The Parthenon
By Mary Beard



Profile Books; 209 pages; £15

Buy it at
Amazon.co.uk

The first important thing about the Parthenon is that, unlike most ancient Greek monuments, it survived more or less intact into modern times. Ms Beard recounts how in the meantime it has been a celebrated cathedral, dedicated to Our Lady of Athens, and then a magnificent mosque. In 1687 it was also an ammunition depot when it suffered a direct hit from Venetian bombardment, which blew up the middle of the building. It was in this sorry state, with a small mosque built in the middle, when Lord Elgin rescued/bought/plundered a large proportion of the sculptures, and took them to London. Further restorations, cleanings, uses and abuses of the temple and its sculptures bring the story down to the present. Ms Beard's confident scholarship gives her the licence to shower the acid rain of her humour on many time-honoured clichés, misunderstandings and sentimentalities. She throws far more light and adds far more colour to the story than the banal *son et lumière* which is presented in Athens every summer.

It may be, though, that her subversive wit has led to a questionable punch-line: that the Parthenon is a “wonder of the world” because it is dismembered, a symbol of diaspora. It is, she claims, “that sense of loss, absence and desire that now gives the monument its cultural power and urgency”. But does that do justice to the building in its setting on the Acropolis? She has nothing to say about its proportions in relation to those of that extraordinary sheer-sided plateau; she says scarcely anything about the colours of the marble and of the crags beneath as they change during the course of the days and the seasons. It is telling that not one of the 23 illustrations gives this perspective, or rather one of these many varied perspectives. Yet it is this very palpability within a landscape that makes many people believe that the Parthenon sculptures should be viewed, not in the grey light of their London vault, but within direct view of the location for which they were created.

Mary Beard enjoys exposing the short-sightedness of others, so she should appreciate this mild disagreement. We should remain grateful to her for such an entertaining, informative and succinct, account of one of the world's greatest, though far from the most grandiose, buildings.

The Parthenon.
By Mary Beard.
Profile Books; 209 pages; £15

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

New fiction from Australia

Hidden depths

Jun 20th 2002
From The Economist print edition

YOU read this novel, which has won this year's Commonwealth Writers' prize, with the hot breath of its author down your neck. If you don't know how to take his circles-within-circles narrative, he'll tell you. By the end, you may have been dazzled and moved; you may have laughed; you may have vomited—torture, shit and putrescence are everywhere; but whatever else, you will have had your aesthetics shaken.

William Buelow Gould is a convict-artist, transported for forgery to Van Diemen's Land, as Tasmania used to be known, in 1828; but really the circle begins further back. Gould's story is also framed by another narrator, Sid Hammet, a present-day faker of antique furniture who discovers Gould's book of fish paintings in a junk shop. That book enchants him; it glows like phosphorescence; it seems to have been written on old fish-skin, old sail-cloth. Its text is chaotic: doubled back, upside down, a "frustrating, sometimes entrancing affair, but not at all the open and shut thing a good book should be."

Gould's Book of Fish: A Novel in 12 Fish
By Richard Flanagan

Grove Press; 416 pages; $27.50.
Atlantic Books; £16.99

Buy it at
Amazon.com
Amazon.co.uk

Sid consults a colonial historian who dismisses it as fraudulent, though as fiction, he adds, it might win literary prizes. Hammet doubts it: the book was never "sufficiently dull-witted and pompous to be mistaken for national literature". Sly Mr Flanagan. One evening it dissolves and Sid decides to re-write it from memory—in effect, becoming Gould, just as Gould ultimately metamorphoses into a fish, taking Sid with him into his new element.

This is art-as-life-as-art, and "round and round"—a signature phrase. Gould himself, remarkably attuned to this kind of self-reflexive discourse, scorns definitions. His fish-paintings defy the classifying, Linnaean purposes of his patron, Mr Lempriere, the prison surgeon who, when not supervising floggings, aspires to membership of the Royal Society. Gould paints the truth of life, he says, "up close". His erotic tongue-and-brushwork with a pectoral fin painted on to the breast of his black lover makes the point. The very ink he uses for his text is blood, and sometimes faecal matter mixed with spittle—which the publishers have obligingly represented in various coloured printing inks.

One of Gould's fellow-convicts tells the story of the San Domingo slave revolt "just like that, like he was an infantryman firing, loading, and refiring his musket". Mr Flanagan's literary knowingness cannot do "just-like-that", but his extraordinary imagination brings him very close. His rage at the penal history of Van Diemen's Land and its special hell-hole, Sarah Island, is transformed by the gabby accents of Gould into a wild tale peopled by hilarious grotesques, each trying to graft thescientific and cultural glories of Europe on to the very system that exposes those glories as fraud. This is an exhausting book, jumping with ideas, and flawed only in not quite having the courage of its author's brilliant imagination.

Gould's Book of Fish: A Novel in 12 Fish.
By Richard Flanagan.
Grove Press; 416 pages; $27.50.
Atlantic Books; £16.99

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

Bill Blass

Jun 20th 2002
From The Economist print edition

William Ralph Blass, fashion designer, died on June 12th, aged 79

REX

AMONG the fashion firms Bill Blass worked for early in his career was one that catered for women who were—"How shall I put it, madam?"—no longer slim. It was a reminder, if one were needed, that the wealthy women Mr Blass aspired to dress mostly did not have trim figures, and were often plain as well. Mr Blass was not dispirited; rather the opposite. A pretty woman could look great even in a bin liner. There was no profit there. He would appraise a client as a sculptor works on a lump of marble, making her, if not a work of art, at least look her best, perhaps even to flatter her so she would win applause from her circle at a dinner party, a charity event or whatever. "You look marvellous, darling. And what a clever dress."

Mr Blass's trick, if it can be summarised in a phrase, was to practise simplicity in clothes. He devised what he called an American style, casual and understated. "A certain nonchalance is always a constant in American clothes," he wrote. He did not actually knock European designers or claim that their clothes were too fussy for the modern American woman, but he sought to counter the idea that only the clothes of European designers were worth a place in her wardrobe. "I simply want to make clothes for now," he said, with the implication that the decadent products of Paris smelt of camphor balls.

He gave more attention to Paris, Texas, than Paris, France. Whereas most American designers made frequent pilgrimages to Europe, Mr Blass travelled widely in the United States. Even when he was rich and famous he would turn up in a provincial town to preside over a fashion show. Local people were charmed that he had taken the trouble to be there. But it was a business decision. Fashion, he said, is "an expression of a period of time". He needed to keep in touch with his market. In truth, Mr Blass was not that keen on provincial America, and as a young man had been glad to get out of it.

The great escape

He was born in Fort Wayne, Indiana, where his father was a travelling salesman and his mother a dressmaker who taught him to sew. The town was named after General "Mad" Anthony Wayne, who had defeated the local Indians. By the 1930s it had become, like other mid-western towns, the prototype for Gopher Prairie, the setting for Sinclair Lewis's novel "Main Street". "There was no dignity in it," Lewis wrote, "nor any hope of greatness."

For young Bill Blass the local cinemas promised another world, of glamour, where people did nothing all day except wear nice clothes and have a good time. He found it encouraging that Carole Lombard had been born in Fort Wayne, but had managed to get away to become a Hollywood star. He had a talent for drawing and won a prize in a newspaper competition. Thus encouraged, at 19 he left for New York. "I had to get out," he said. Mr Blass had a few lessons at an art school, and was taken on as an artist and odd-job man by a clothes manufacturer. After the Americans entered the second world war in 1941 he joined the army.

In the war the army could always find a job for a recruit, even an embryo dress designer. Mr Blass was put in a camouflage unit and impressed his comrades with his skill at making decoy tanks. He was proud of his war record. He served in Europe all the way to victory over Germany. He rose to the rank of corporal. During a spell in Britain he acquired the traces of an English accent, and archaic expressions such as "old gal" that were to endear him to his customers. When he had made enough money he

ordered his suits from Savile Row. In the lists that Americans like to compile, he was regularly voted one of the world's best-dressed men.

In 1970, after some 25 years of growing success in the rag trade, he launched himself as Bill Blass Ltd. Whatever his view of European fashion, he saw the commercial value of publicising a designer's name with the product. Everyone knew of Dior. Mr Blass set out to be as well known as Dior to Americans. Like the European designers, he put on lavish shows featuring clothes that only models could wear. He branched out into clothes for men, but never persuaded American males to wear the kilt. A waspish advertising campaign with the title “Things I like and things I don't like about women” made some people wonder whether he really did love his rich clients as much as he said he did. A woman friend said he was “wry and ironic” towards people.

But his enterprises, and his personality, generated valuable publicity, and Mr Blass sold licences to attach his name to a wide range of products: scent, luggage, chocolate, furnishings, nearly 100 items in all. It may seem odd that anyone would buy a box of chocolates because a name unconnected with the manufacture of confectionery was associated with it. “It has to do with individuality,” Mr Blass said. Individuality had its limits. He politely refused licences to makers of coffins and dentures.

By the late 1980s his business had a turnover of around $160m. He was generous with his wealth, contributing to AIDS programmes and other charities. He collected dozens of fashion awards. He sold up in 1999, for $50m according to reports. He never quite shook off Fort Wayne. It added him to its roll of honour.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Overview

Jun 20th 2002
From The Economist print edition

Most stockmarkets continued to fall. In **Japan**, share prices declined by 7.5%. The equity prices of **Britain's** FTSE 100 companies fell by 4.1%. In **America**, the tech-heavy Nasdaq index fell by 1.5%, but the S&P 500 index was unchanged.

The **dollar** also continued to weaken, losing ground against the euro and the yen. Its trade-weighted value fell by almost 1% over the week.

In **America**, consumer prices were flat in May, mainly because of lower energy and food prices. As a result, inflation in the year to May declined from 1.6% to 1.2%.

Final figures confirmed that **euro-area** inflation in May fell back to the 2% ceiling set by the European Central Bank. However, core inflation—which excludes energy, food, alcohol and tobacco—rose to 2.6%, mainly because of higher service-sector inflation. The changeover in January to cash use of the euro is widely blamed for price increases in hotels and restaurants, where inflation rose from 4.4% to 4.7%, up from 3.6% in the 12 months to December.

Industrial production in the **euro area** fell by 0.5% in April, surprising economists who had expected a further rise in output after the 0.5% monthly increase in March. The decline left industrial output 1.2% lower than a year ago.

In **Britain**, there was a surprisingly large fall in consumer-price inflation, from 1.5% to 1.1% in the year to May. On the harmonised index used in the euro area, inflation fell to 0.8%, the lowest of any country in the EU. Excluding mortage-interest payments, the rate of inflation fell from 2.3% to 1.8%, a 25-year low also touched in November and well below the 2.5% target set by the government. With inflation so tame, expectations among traders in the financial futures markets of an early increase in interest rates receded.

There was also welcome news in **Britain's** labour market. Although the ILO unemployment rate edged up to 5.2%, the number of people in employment rose by 88,000 in the first quarter. The number of people claiming unemployment benefit fell by 7,000 in May. The annual rate of earnings growth rose from 2.9% to 3.3% in the three months to April.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

About sponsorship

Output, demand and jobs

Jun 20th 2002
From The Economist print edition

% change at annual rate

	GDP		The Economist poll GDP forecasts		Industrial production		Retail sales (volume)		Unemployment % rate	
	1 qtr	1 year	2002	2003	latest		latest		latest	year ago
Australia	+ 3.6	+ 4.2 Q1	+ 4.0	+ 3.9	+ 2.5	Q4	+ 5.0	Q1	6.3 May	6.8
Austria	– 0.7	– 0.4 Q4	+ 1.3	+ 2.7	– 3.1	Mar	+ 1.0	Feb	4.0 Apr	3.4
Belgium	+ 2.0	– 0.3 Q1	+ 1.4	+ 3.1	+ 3.8	Apr	– 2.5	Mar	10.4 May*	10.0
Britain	nil	+ 1.0 Q1	+ 1.8	+ 3.0	– 4.1	Apr	+ 5.4	May	5.2 Apr†	5.0
Canada	+ 6.0	+ 2.1 Q1	+ 2.9	+ 3.6	– 0.6	Mar	+ 5.4	Mar	7.7 May	7.0
Denmark	+ 1.4	+ 1.1 Q1	+ 1.6	+ 2.5	– 0.8	Apr	+ 2.1	Feb	5.0 Apr	5.4
France	+ 1.4	+ 0.3 Q1	+ 1.4	+ 2.9	+ 0.9	May	– 0.6	Apr	9.1 Apr	8.6
Germany	+ 0.7	– 1.2 Q1	+ 0.9	+ 2.7	– 2.0	Apr	– 1.9	Apr	9.7 May‡	9.2
Italy	+ 0.6	+ 0.1 Q1	+ 1.3	+ 2.9	+ 0.5	Apr	+ 0.5	Mar	9.0 Jan	9.8
Japan	+ 5.7	– 1.6 Q1	– 0.8	+ 1.2	– 6.1	Apr	– 2.7	Apr	5.2 Apr	4.8
Netherlands	nil	nil Q1	+ 1.4	+ 2.9	– 5.6	Apr	– 0.2	Mar	2.3 May§	1.9
Spain	+ 2.1	+ 2.0 Q1	+ 2.2	+ 3.3	+10.0	Apr	na		11.3 Apr**	10.6
Sweden	+ 1.1	+ 1.1 Q1	+ 1.8	+ 3.0	+ 0.4	Apr	+ 4.7	Apr	3.4 May*	3.5
Switzerland	+ 0.7	+ 0.2 Q1	+ 1.1	+ 2.3	– 1.0	Q4	+ 4.3	Apr	2.5 May*	1.7
United States	+ 5.6	+ 1.5 Q1	+ 2.9	+ 3.5	– 1.6	May	+ 5.7	Apr	5.8 May	4.4
Euro area	+ 0.9	+ 0.1 Q1	+ 1.3	+ 2.9	– 1.2	Apr	+ 2.0	Mar	8.3 Apr**	8.0
MORE COUNTRIES	Data for the countries below are not provided in printed editions of *The Economist*									
Finland	– 0.6	– 2.0 Q1	na	na	+ 6.8	Apr	+ 1.9	Feb	11.9 May*	11.3
Greece	na	+ 4.3 Q1	na	na	– 2.0	Feb	+ 8.4	Jan	na	na
Iceland	na	+ 3.1 2001	na	na	+ 3.3	2001	na		2.6 Apr*	1.6
Ireland	na	nil Q4	na	na	– 2.7	Apr	+ 0.1	Mar	4.2 May	3.7
Luxembourg	na	+ 3.5 2001	na	na	– 7.1	Mar	+15.3	Jan	2.8 Apr	2.5
New Zealand	+ 2.6	+ 2.9 Q4	na	na	+ 3.5	Q4	+ 8.2	Q1	5.3 Q1	5.4
Norway	– 1.1	+ 1.0 Q1	na	na	+ 3.9	Apr	+ 3.9	Apr	4.1 Q1	3.7
Portugal	+ 1.8	+ 1.0 Q4	na	na	+ 1.0	Apr	– 0.2	Apr	4.4 Q1*	4.2

*Not seasonally adjusted. †Feb-Apr; claimant count rate 3.1% in May. ‡EU harmonised rate 8.1% in Apr. §Mar-May. **Revised series.

Text refers only to the first 16 countries listed

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Prices and wages

Jun 20th 2002
From The Economist print edition

% change at annual rate

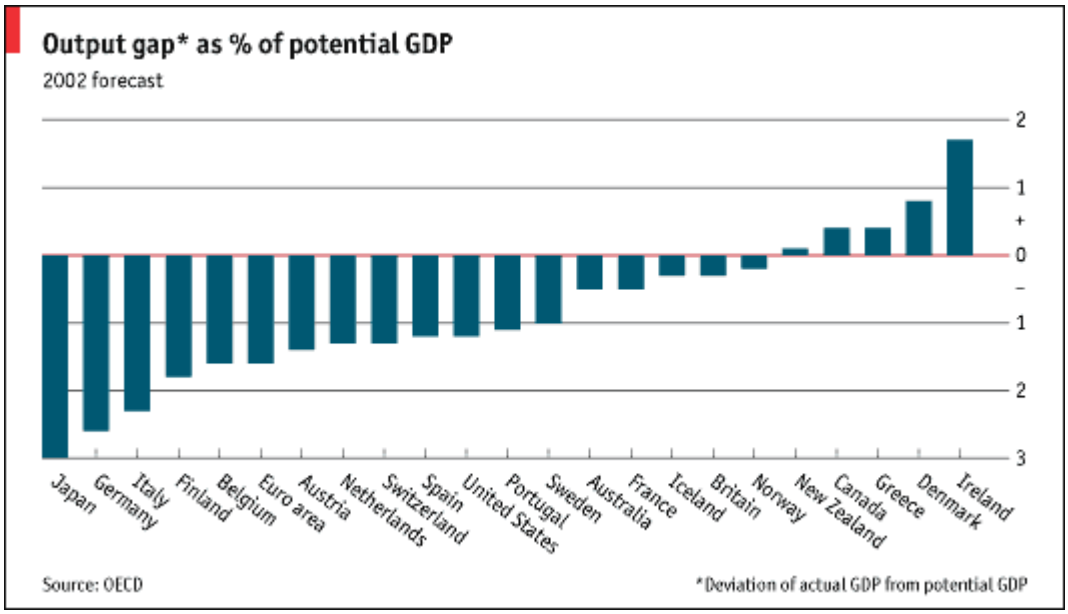
	Consumer prices		The Economist poll consumer prices forecast		Producer prices		Wages/earnings	
	latest	year ago	2002	2003	latest	year ago	latest	year ago
Australia	+ 2.9 Q1	+ 6.0	+ 2.6	+ 2.5	+ 0.5 Q1	+ 5.2	+ 4.3 Q1	+ 5.6
Austria	+ 1.9 May	+ 3.4	+ 1.7	+ 1.7	– 0.8 May	+ 3.1	+ 2.4 Apr	+ 2.6
Belgium	+ 1.3 May	+ 3.1	+ 2.0	+ 1.7	+ 1.4 Apr	+ 3.3	+ 3.1 Q1	+ 1.9
Britain	+ 1.1 May	+ 2.1	+ 2.1	+ 2.5	+ 0.1 May	+ 0.7	+ 3.3 Apr	+ 5.2
Canada	+ 1.7 Apr	+ 3.6	+ 1.5	+ 2.1	– 1.5 Apr	+ 2.7	+ 3.3 Mar	+ 1.2
Denmark	+ 2.1 May	+ 2.7	+ 2.4	+ 2.1	– 0.3 May	+ 2.9	+ 4.0 Q1	+ 3.8
France	+ 1.4 May	+ 2.3	+ 1.8	+ 1.5	– 0.7 Apr	+ 3.0	+ 3.9 Q1	+ 4.3
Germany	+ 1.1 May	+ 3.5	+ 1.6	+ 1.4	– 1.3 May	+ 4.0	+ 2.4 Mar	+ 1.6
Italy	+ 2.3 May	+ 3.0	+ 2.2	+ 2.1	– 1.2 Apr	+ 4.3	+ 2.6 Apr	+ 2.6
Japan	– 1.1 Apr	– 0.7	– 0.9	– 0.6	– 0.9 May	+ 0.9	+ 0.1 Apr	+ 0.1
Netherlands	+ 3.3 May	+ 4.9	+ 3.6	+ 2.5	– 0.7 Apr	+ 6.2	+ 3.1 Apr	+ 4.6
Spain	+ 3.6 May	+ 4.2	+ 3.1	+ 2.6	+ 0.8 Apr	+ 2.8	+ 3.7 Q4	na
Sweden	+ 2.0 May	+ 3.0	+ 2.4	+ 2.1	– 0.7 Apr	+ 3.3	+ 4.0 Mar	+ 3.4
Switzerland	+ 0.6 May	+ 1.8	+ 0.8	+ 1.2	– 1.4 May	+ 0.4	+ 2.5 2001	+ 1.3
United States	+ 1.2 May	+ 3.6	+ 1.6	+ 2.3	– 2.7 May	+ 3.9	+ 3.2 May	+ 4.2
Euro area	+ 2.0 May	+ 3.4	+ 2.1	+ 1.8	– 0.7 Apr	+ 4.2	+ 3.0 Q4	+ 2.5
MORE COUNTRIES	Data for the countries below are not provided in printed editions of *The Economist*							
Finland	+ 1.3 May	+ 3.3	na	na	– 1.0 Apr	+ 2.9	+ 4.6 Q4	+ 5.0
Greece	+ 3.4 May	+ 3.6	na	na	+ 3.7 Mar	+ 4.3	na	na
Iceland	+ 4.8 Jun	+ 6.8	na	na	+ 7.4 May	+ 5.7	+ 8.0 Apr	+ 9.2
Ireland	+ 4.7 May	+ 5.4	na	na	+ 1.0 Apr	+ 3.1	+ 8.1 Q4	+ 6.4
Luxembourg	+ 1.9 May	+ 3.3	na	na	– 3.0 Mar	+ 3.9	+ 0.1 Mar	+ 6.7
New Zealand	+ 2.6 Q1	+ 3.1	na	na	+ 2.8 Q1	+ 8.0	+ 2.1 Q1	+ 1.8
Norway	+ 0.4 May	+ 4.3	na	na	–11.3 May	+ 4.6	+ 4.6 Q1	+ 4.4
Portugal	+ 3.3 May	+ 4.8	na	na	– 1.5 Apr	+ 3.2	na	na

Text refers only to the first 16 countries listed

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Output gap

Jun 20th 2002
From The Economist print edition



The output gap measures the difference between an economy's actual and potential GDP. Estimating potential GDP—the level of output consistent with stable inflation and full employment—is part science, part guesswork. In 2002 Ireland will have the biggest positive output gap among the countries shown, for the fourth year running, according to the OECD. Japan and Germany will have the biggest negative gaps.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

About sponsorship

Money and interest rates

Jun 20th 2002
From The Economist print edition

	Money supply* % change on year ago			Interest rates % p.a. (Jun 19th 2002)					
				3-mth money market		2-year	10-year gov't bonds		corporate
	narrow	broad		latest	year ago	gov't bonds	latest	year ago	bonds
Australia	– 1.3	+15.7	Apr	5.05	4.96	5.40	5.92	5.82	7.01‡
Britain	+ 8.0	+ 5.7	Apr	4.13	5.16	4.59	4.97	5.14	5.93
Canada	+12.8	+ 5.7	Apr	2.73	4.22	3.86	5.35	5.71	6.94
Denmark	+ 7.3	+ 8.2	Apr	3.65	5.05	4.24	5.14	5.24	6.94
Japan	+31.9	+ 3.5	May	0.02	0.01	0.02	1.34	1.17	1.43
Sweden	+ 6.4	+ 7.4	Jan	4.26	4.30	4.86	5.37	5.34	5.41
Switzerland	+ 4.1	+ 3.0	May	1.27	3.24	1.96	3.17	3.34	4.04
United States	+ 5.9	+ 7.8	May	1.75	3.61	2.76	4.72	5.20	6.76
Euro area†	+ 6.9	+ 7.5	Apr	3.47	4.45	4.00	4.89	4.93	5.75

*Narrow: M1 except Britain and Sweden M0, broad: M2 or M3 except Britain M4. †Germany for bonds. ‡New series. Benchmarks: US 30-year 5.39%, Japan No.239 1.38%. Central bank rates: US fed funds 1.75%, ECB refinancing 3.25%, BOJ overnight call 0.001%, BOE repo 4.00%. Sources: Commerzbank, Danske Bank, J.P. Morgan Chase, Royal Bank of Canada, Stockholmsbörsen, UBS Warburg, DRI-WEFA, Westpac, Thomson Datastream. Rates cannot be construed as banks' offers.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

The Economist commodity price index

Jun 20th 2002
From The Economist print edition

1995=100

	Jun 11th	Jun 18th*	% change on one month	% change on one year
Dollar index				
All items	69.6	69.7	+ 1.2	+ 0.3
Food	69.5	68.9	– 1.0	+ 1.5
Industrials				
All	69.9	70.7	+ 4.3	– 1.2
Nfa†	69.7	72.4	+ 5.9	+ 2.5
Metals	70.0	69.3	+ 2.9	– 4.3
Sterling index				
All items	75.0	73.9	– 0.9	– 5.4
Euro index				
All items	97.2	96.6	– 2.0	– 9.3
Yen index				
All items	93.1	92.3	+ 1.5	+ 1.7
Gold				
$ per oz	317.35	318.95	+ 0.7	+16.2
West Texas Intermediate				
$ per barrel	24.30	25.35	– 6.0	– 7.2

* Provisional. † Non-food agriculturals.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

About sponsorship

Stockmarkets

Jun 20th 2002
From The Economist print edition

Market indices

	Jun 19th	2002 high	2002 low	% change on one week	% change on record high	% change on Dec 31st 2001 in local currency	% change on Dec 31st 2001 in $ terms
Australia (All Ordinaries)	3,230.7	3,440.0	3,230.7	– 1.4	– 6.1	– 3.8	+ 6.4
Austria (ATX)	1,243.8	1,357.2	1,114.4	– 1.7	–28.4	+ 9.1	+17.0
Belgium (Bel 20)	2,505.1	2,899.8	2,472.3	– 3.4	–32.0	–10.0	– 3.4
Britain (FTSE 100)	4,652.4	5,323.8	4,630.8	– 4.1	–32.9	–10.8	– 8.7
Canada (Toronto Composite)	7,247.8	7,958.1	7,249.0	– 1.5	–36.4	– 5.7	– 2.3
Denmark (KBX)	203.8	233.4	203.8	– 4.6	–32.5	– 9.3	– 2.7
France (SBF 250)	2,628.8	3,081.9	2,573.2	– 1.9	–40.1	–11.8	– 5.4
(CAC 40)	3,935.6	4,688.0	3,843.1	– 1.7	–43.1	–14.9	– 8.7
Germany (Xetra DAX)	4,354.8	5,462.6	4,303.9	– 3.4	–46.0	–15.6	– 9.4
Italy (BCI)	1,291.6	1,513.0	1,273.7	– 2.7	–40.8	– 9.9	– 3.3
Japan (Nikkei 225)	10,476.2	11,979.9	9,420.9	– 7.5	–73.1	– 0.6	+ 5.1
(Topix)	1,012.2	1,139.4	922.5	– 7.4	–64.9	– 1.9	+ 3.8
Netherlands (AEX)	439.2	531.2	430.0	– 1.7	–37.4	–13.3	– 7.0
Spain (Madrid SE)	750.4	848.1	744.4	– 2.4	–34.5	– 9.0	– 2.3
Sweden (Affarsvarlden Gen)	177.5	236.8	177.5	– 2.1	–55.7	–23.3	–15.3
Switzerland (Swiss Market)	5,971.6	6,694.1	5,971.6	– 2.8	–29.0	– 7.0	+ 0.2
United States (DJIA)	9,561.6	10,635.3	9,474.2	– 0.6	–18.4	– 4.6	– 4.6
(S&P 500)	1,020.0	1,172.5	1,007.3	nil	–33.2	–11.2	–11.2
(Nasdaq Comp)	1,496.8	2,059.4	1,496.8	– 1.5	–70.4	–23.3	–23.3
Europe (FTSE Eurotop 300)*	1,075.6	1,279.7	1,064.2	– 2.7	–36.9	–14.7	– 8.5
Euro area (FTSE Ebloc 100)*	929.1	1,125.1	909.8	– 1.8	–40.1	–16.5	–10.4
World (MSCI)†	914.0	1,024.4	905.7	– 1.2	–36.9	na	– 8.9
World bond market (Salomon)‡	470.9	470.9	430.3	+ 1.6	+ 2.4	na	+ 7.1

*In euro terms. †Morgan Stanley Capital International index includes individual markets listed above plus eight others, in dollar terms.
‡Salomon Smith Barney World Government Bond Index, total return, in $ terms.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Trade, exchange rates and budgets

Jun 20th 2002
From The Economist print edition

	Trade balance*, $bn latest 12 months		Current account $bn latest 12 mths		The Economist poll % of GDP, forecast 2002	2003	Exchange rate trade-weighted† Jun 19th	year ago	Currency units per $ Jun 19th	year ago	per £	per euro	per ¥100	Budget balance % of GDP 2002‡
Australia	+ 1.0	Apr	− 9.5	Q1	− 3.5	− 3.6	76.9	73.7	1.77	1.93	2.63	1.69	1.43	0.1
Austria	− 2.6	Mar	− 2.8	Mar	− 2.2	− 2.0	100.8	99.8	1.05	1.17	1.56	–	0.84	-0.3
Belgium	+ 12.2	Apr	+ 13.0	Dec	+ 5.1	+ 5.3	100.0	98.2	1.05	1.17	1.56	–	0.84	nil
Britain	− 47.1	Apr	− 25.1	Q4	− 2.2	− 2.1	104.1	106.4	0.67	0.72	–	0.64	0.54	-0.8
Canada	+ 36.2	Mar	+ 14.7	Q1	+ 2.2	+ 2.5	77.6	79.0	1.54	1.53	2.29	1.47	1.24	1.0
Denmark	+ 7.0	Apr	+ 3.5	Apr	+ 1.9	+ 1.9	102.7	101.0	7.78	8.75	11.6	7.43	6.28	2.2
France	+ 7.1	Apr	+ 24.9	Apr	+ 1.7	+ 1.7	102.8	100.7	1.05	1.17	1.56	–	0.84	-2.0
Germany	+ 94.5	Apr	+ 14.9	Apr	+ 0.7	+ 0.8	99.9	97.5	1.05	1.17	1.56	–	0.84	-2.8
Italy	+ 8.9	Mar	− 0.3	Mar	+ 0.1	nil	73.3	71.9	1.05	1.17	1.56	–	0.84	-1.4
Japan	+ 73.5	Apr	+ 97.4	Apr	+ 2.6	+ 2.6	132.2	139.2	124	123	185	118	–	-8.0
Netherlands	+ 22.8	Apr	+ 13.6	Q1	+ 3.7	+ 4.0	99.0	97.0	1.05	1.17	1.56	–	0.84	0.1
Spain	− 37.1	Mar	− 15.3	Mar	− 2.1	− 1.8	74.9	73.6	1.05	1.17	1.56	–	0.84	-0.3
Sweden	+ 14.0	Apr	+ 7.6	Apr	+ 3.1	+ 3.2	77.9	75.6	9.5	10.7	14.1	9.07	7.66	2.1
Switzerland	+ 2.1	Apr	+ 24.6	Q4	+ 9.7	+ 9.9	113.5	107.1	1.54	1.79	2.30	1.47	1.24	na
United States	−421.4	Mar	−417.4	Q4	− 4.2	− 4.5	115.7	121.0	–	–	1.49	0.96	0.81	-1.0
Euro area	+ 58.9	Mar	+ 15.1	Mar	+ 0.3	+ 0.4	81.3	76.7	1.05	1.17	1.56	–	0.84	-1.5
MORE COUNTRIES	Data for the countries below are not provided in printed editions of *The Economist*													
Finland	+ 12.1	Apr	+ 7.4	Apr	na	na	78.8	77.3	1.05	1.17	1.56	–	0.84	3.2
Greece	− 19.1	Dec	− 7.2	Dec	na	na	57.9	57.0	1.05	1.17	1.56	–	0.84	0.4
Iceland	+ 0.1	Apr	− 0.4	Q4	na	na	na	na	89.2	108	133	85.3	72.0	-0.5
Ireland	+ 32.5	Mar	− 1.1	Q4	na	na	89.2	86.0	1.05	1.17	1.56	–	0.84	0.1
Luxembourg	− 2.9	Feb	+ 0.9	Q4	na	na	100.0	98.2	1.05	1.17	1.56	–	0.84	2.2
New Zealand	+ 0.2	Apr	− 1.6	Q4	na	na	90.3	79.7	2.05	2.42	3.05	1.95	1.65	0.1
Norway	+ 25.1	May	+ 25.5	Mar	na	na	105.0	96.2	7.72	9.25	11.5	7.37	6.23	14.0
Portugal	− 13.1	Mar	− 9.8	Mar	na	na	90.0	88.7	1.05	1.17	1.56	–	0.84	-2.4

*Merchandise. Australia, Britain, France, Canada, Japan and United States imports fob, exports fob. All others cif/fob. †1990=100, Bank of England. ‡OECD forecast.

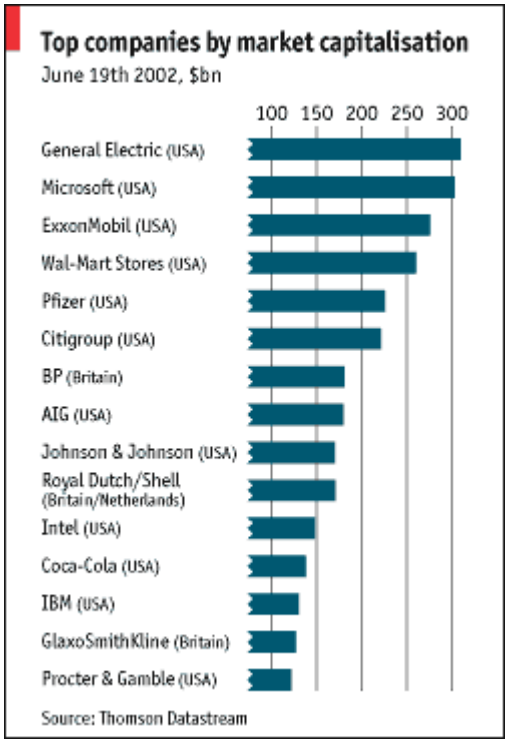
Text refers only to the first 16 countries listed

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

About sponsorship

Top companies by market capitalisation

Jun 20th 2002
From The Economist print edition



Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Overview

Jun 20th 2002
From The Economist print edition

Several Asian stockmarkets fell sharply. Equity prices in **South Korea** fell by 5.7%; they declined by 6.4% in **Hong Kong** and by 4.9% in **Singapore**. The **Russian** stockmarket also fell by 9.6%.

Argentina's GDP fell by 16.3% in the first quarter over a year earlier. But GDP growth in **Thailand** rose to 3.9% in the year to the first quarter.

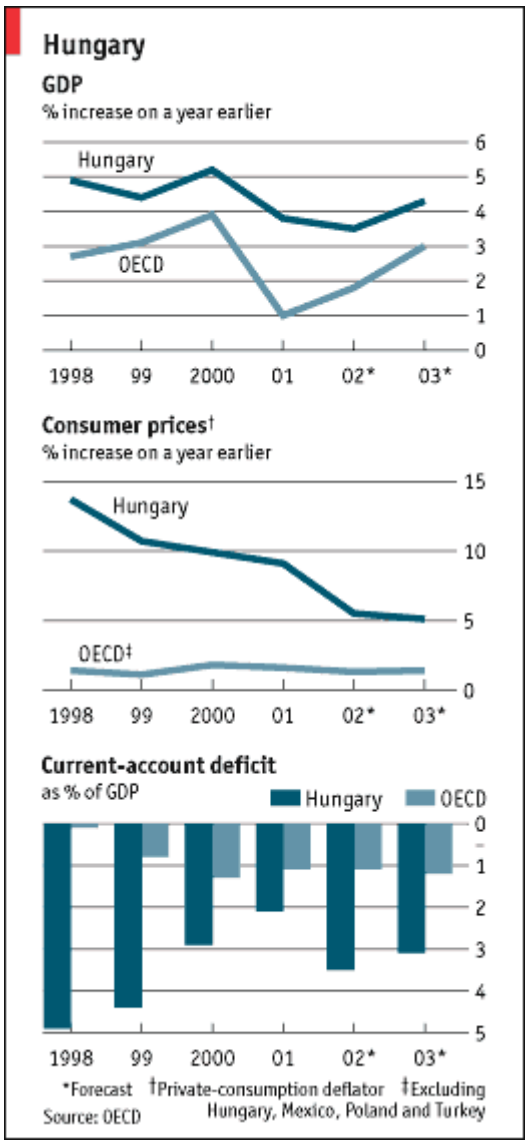
South Africa's inflation rate rose to 8.4% in the year to May, its highest since early 1999. Consumer prices in **Israel** rose by 5.5% in May, the highest for almost three years.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Hungary

Jun 20th 2002
From The Economist print edition

Hungary has made good progress in catching up with richer countries. However, more needs to be done to prepare the economy for joining the EU, according to the latest survey by the OECD. The report calls for an overhaul of how public spending is planned and controlled. It also says that fiscal policy—which has been boosting the economy—should be tightened. This would buttress the new monetary-policy framework for controlling inflation.



Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Economy

Jun 20th 2002
From The Economist print edition

	% change on year earlier						Latest 12 months, $bn				Foreign reserves* $bn, latest	
	GDP		Industrial production		Consumer prices		Trade balance		Current account			
China	+ 7.6	Q1	+12.9	May	– 1.1	May	+25.8	May	+21.2	2001§	230.9	Mar
Hong Kong	– 0.9	Q1	– 9.3	Q4	– 3.0	Apr	– 8.8	Apr	+12.0	Q4	111.3	May
India	+ 6.3	Q4	+ 2.9	Apr	+ 4.7	Apr	– 5.8	Apr	– 0.1	Q4	52.9	May
Indonesia	+ 2.5	Q1	– 2.2	Q3	+12.9	May	+26.6	Apr	+ 8.4	Q3	27.3	Apr
Malaysia	+ 1.1	Q1	+ 3.8	Apr	+ 1.6	May	+13.5	Apr	+ 6.9	Q4	32.8	Apr
Philippines	+ 3.8	Q1	– 1.2	Mar	+ 3.6	May	+ 2.3	Apr	+ 5.0	Feb	14.4	May
Singapore	– 1.7	Q1	+ 8.1	Apr	– 1.1	Apr	+ 5.7	Apr	+18.4	Q1	78.2	May
South Korea	+ 5.7	Q1	+ 7.3	Apr	+ 3.0	May	+ 9.0	May	+ 7.0	Apr	107.6	Apr
Taiwan	+ 0.9	Q1	+ 7.5	Apr	– 0.3	May	+18.7	May	+22.0	Q1	139.8	May
Thailand	+ 3.9	Q1	+ 9.2	Apr	+ 0.1	May	+ 4.1	Apr	+ 6.0	Apr	33.7	Apr
Argentina	–16.3	Q1	–14.3	May	+23.0	May	+10.8	Apr	– 4.4	Q4	12.2	Apr
Brazil	– 0.7	Q1	+ 6.0	Apr	+ 7.8	May	+ 4.9	May	–19.3	Apr	33.0	Apr
Chile	+ 1.5	Q1	+ 6.6	Apr	+ 2.1	May	+ 1.7	Apr	– 1.0	Q1	15.3	Apr
Colombia	+ 0.5	Q1	–11.0	Mar	+ 5.8	May	+ 0.6	Mar	– 1.7	Q4	10.4	Apr
Mexico	– 2.0	Q1	+ 8.0	Apr	+ 4.7	May	– 9.2	Apr	–16.8	Q1	45.1	Apr
Peru	+ 7.5	Apr	– 2.4	Mar	+ 0.2	May	+ 0.1	Mar	– 1.0	Q1	8.7	Apr
Venezuela	– 4.2	Q1	+ 9.7	Jan	+18.3	May	+ 8.0	Q1	+ 1.8	Q1	6.2	Mar
Egypt	+ 4.9	2001†	+ 7.8	2001†	+ 2.5	Mar	– 8.6	Jan	– 0.1	Q4	12.5	Feb
Israel	– 4.2	Q1	–10.0	Mar	+ 5.5	May	– 5.8	May	– 1.7	Q4	24.3	May
South Africa	+ 2.1	Q1	+12.5	Apr	+ 8.4	May	+ 3.7	Apr	– 0.2	Q4	6.0	Apr
Turkey	–10.4	Q4	+14.1	Apr	+46.2	May	– 8.0	Mar	+ 3.7	Mar	23.6	Apr
Czech Republic	+ 2.5	Q1	+ 8.2	Apr	+ 2.5	May	– 2.4	Apr	– 2.4	Q1	20.2	May
Hungary	+ 2.9	Q1	– 0.3	Apr	+ 5.6	May	– 2.3	Apr	– 1.6	Apr	9.8	May
Poland	+ 0.3	Q4	+ 0.2	Apr	+ 1.9	May	–11.1	Apr	– 0.8	Apr	26.2	Apr
Russia	+ 3.7	Q1	+ 2.8	May	+16.2	May	+44.8	Apr	+31.2	Q1	35.0	Apr
MORE COUNTRIES	Data for the countries below are not provided in printed editions of *The Economist*											
Pakistan	+ 3.3	2001†	+16.3	Jan	+ 2.9	May	– 1.1	May	+ 0.3	2001†	4.0	Apr
Saudi Arabia	+ 1.2	2001	na		nil	Feb	+44.1	2001	+14.5	2001	17.7	Apr

*Excluding gold, except Singapore; IMF definition. †Year ending June. §Economist Intelligence Unit estimate.

Text refers only to the first 25 countries listed

Sources: National statistics offices, central banks and stock exchanges; Thomson Financial Datastream; Economist Intelligence Unit; Reuters; Warburg Dillon Read; J.P Morgan Chase; Hong Kong Monetary Authority; Centre for Monitoring Indian Economy; FIEL; EFG-Hermes; Bank Leumi Le-Israel; Standard Bank Group; Garanti Bank; Deutsche Bank; *Russian Economic Trends*.

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.

Financial markets

Jun 20th 2002
From The Economist print edition

	Currency units			Interest rates	Stockmarkets	% change on		
	per $		per £	short-term	Jun 19th		Dec 31st 2001	
	Jun 19th	year ago	Jun 19th	% p.a.		one week	in local currency	in $ terms
China	8.28	8.28	12.3	na	1,573.5	+3.2	– 8.1	– 8.1
Hong Kong	7.80	7.80	11.6	1.80	10,673.1	–6.4	– 6.4	– 6.4
India	48.9	47.0	72.8	6.38	3,242.3	–3.1	– 0.6	– 2.0
Indonesia	8,625	11,290	12,850	16.10	534.5	+2.0	+ 36.3	+ 64.4
Malaysia	3.80	3.80	5.66	3.25	743.9	–0.9	+ 6.9	+ 6.9
Philippines	50.2	52.3	74.8	5.44	1,220.3	–4.2	+ 4.5	+ 7.4
Singapore	1.79	1.82	2.66	0.88	1,564.6	–4.9	– 3.6	– 0.3
South Korea	1,220	1,304	1,818	4.84	776.4	–5.7	+ 11.9	+ 20.5
Taiwan	34.0	34.4	50.6	2.35	5,399.5	nil	– 2.7	+ 0.2
Thailand	42.1	45.3	62.7	2.13	406.5	–4.0	+ 33.8	+ 40.6
Argentina	3.54	1.00	5.27	49.30	300.5	+9.0	+ 1.7	– 71.3
Brazil	2.70	2.48	4.02	18.37	11,485.2	–5.3	– 15.4	– 27.5
Chile	676	623	1,007	3.84	5,092.4	+0.9	– 5.7	– 7.7
Colombia	2,393	2,305	3,565	8.69	1,274.8	+3.2	+ 19.0	+ 13.3
Mexico	9.69	9.08	14.4	6.89	6,691.0	–1.6	+ 5.0	– 0.6
Peru	3.47	3.52	5.18	2.49	1,184.8	–0.6	+ 0.8	– 0.1
Venezuela	1,236	718	1,841	38.52	7,558.9§	+1.7	+ 15.0	– 29.5
Egypt	4.60	3.87	6.85	7.19	5,311.2	–0.4	+ 0.7	+ 0.2
Israel	4.96	4.15	7.39	4.37	353.8	–2.3	– 20.8	– 29.5
South Africa	10.2	8.10	15.2	12.20	10,856.1	–2.5	+ 4.0	+ 21.9
Turkey	1,545,000	1,268,500	2,301,896	44.00	9,378.4	–3.4	– 32.0	– 35.9
Czech Republic	31.9	39.9	47.5	3.79	447.6	–2.5	+ 13.4	+ 26.5
Hungary	254	289	379	9.20	7,749.1	–2.9	+ 8.7	+ 17.3
Poland	4.02	3.99	5.99	9.70	14,897.7	–4.3	+ 7.0	+ 5.2
Russia	31.5	29.1	46.9	23.00	358.2‡	–9.6	+ 42.1	+ 37.8
EMF (MSCI)*	1.00	1.00	1.49	na	328.7	–3.2	na	+ 3.6
EMBI+†	1.00	1.00	1.49	na	205.6	–0.4	na	+ 2.6

*Emerging Mkts Free. †J.P. Morgan Chase's Emerging Mkts Bond Index Plus. ‡ In $ terms. § Jun 18th.

Sources: National statistics offices, central banks and stock exchanges; Thomson Financial Datastream; Economist Intelligence Unit; Reuters; Warburg Dillon Read; J.P Morgan Chase; Hong Kong Monetary Authority; Centre for Monitoring Indian Economy; FIEL; EFG-Hermes; Bank Leumi Le-Israel; Standard Bank Group; Garanti Bank; Deutsche Bank; *Russian Economic Trends.*

Copyright © 2007 The Economist Newspaper and The Economist Group. All rights reserved.